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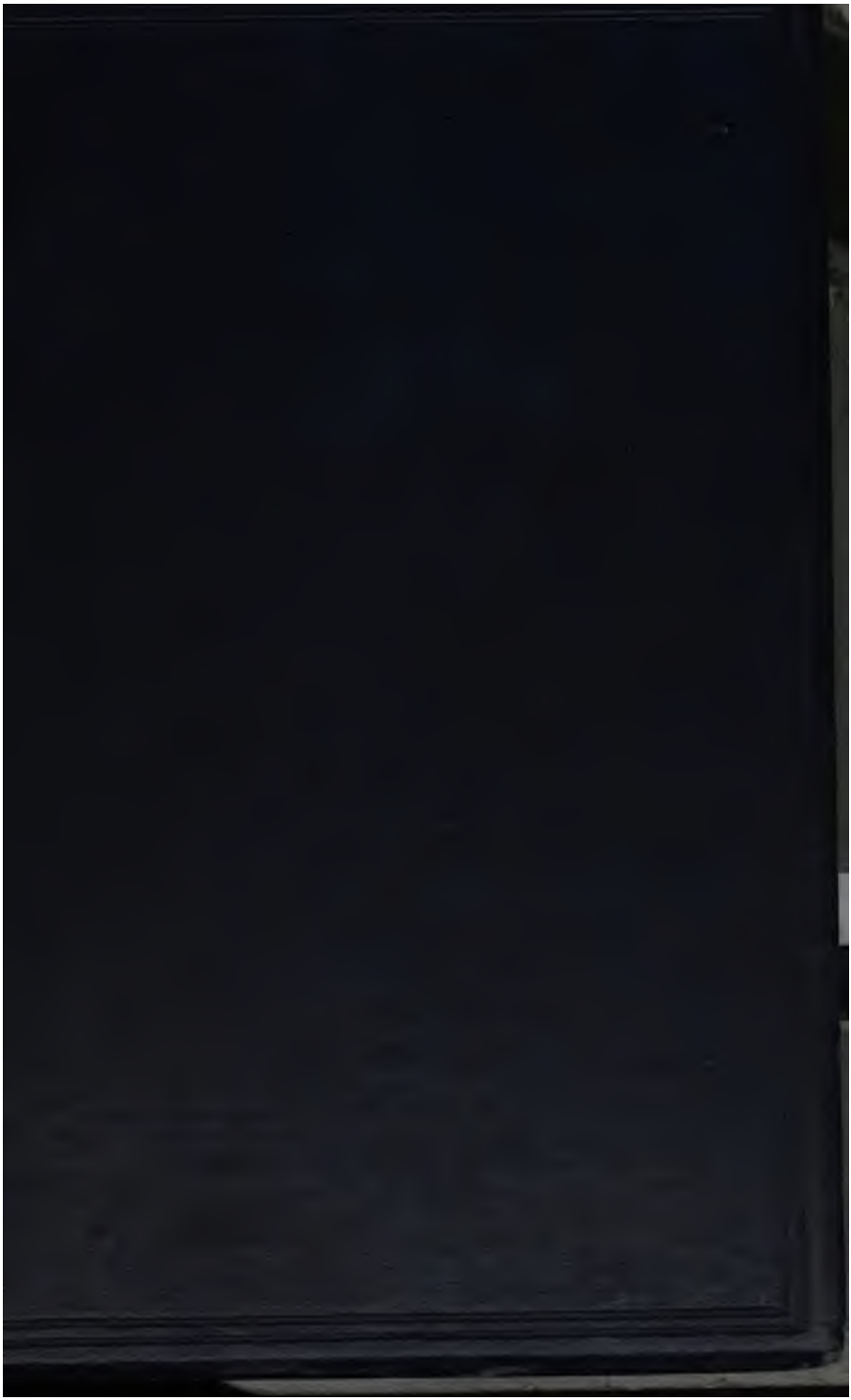

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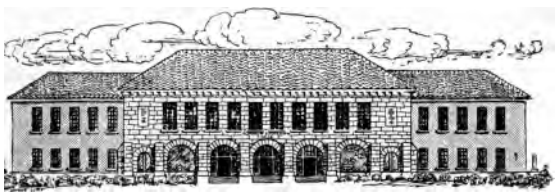

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EDUCATION

IN THE

NINETEENTH CENTURY

LECTURES
DELIVERED IN THE EDUCATION SECTION OF
THE CAMBRIDGE UNIVERSITY EXTENSION
SUMMER MEETING IN AUGUST 1900

EDITED BY

R. D. ROBERTS, M.A., D.Sc. (LOND.)

SECRETARY FOR LECTURES OF THE LOCAL EXAMINATIONS AND LECTURES SYNDICATE.

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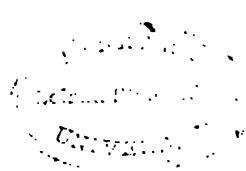


PREFACE.

WITH two exceptions the Lectures included in this volume formed the series on "Education in the Nineteenth Century" delivered at the Summer Meeting for University Extension Students and others held at Cambridge in August, 1900.

The Syndicate for Local Examinations and Lectures in making the arrangements for the Meeting selected as the general subject, "Life and Thought in England in the Nineteenth Century." Special prominence was given to the subject of Education, not only because of the large attendance of Teachers, English and Foreign, but also on account of the new and growing demand for fuller knowledge about Education amongst those not engaged professionally in teaching, but who either as parents or as citizens feel a general interest in educational methods and reforms.

The Lectures were not intended to present a scientific treatment of Education embracing technical details, but to display broad historical treatment shewing the main advances which have been made in different departments of Education during the Nineteenth Century. The attendance at the Lectures was so large and the interest displayed so keen as fully to

65191

realise the expectations of the Syndicate that the series would prove to be attractive as well as useful.

In consequence of numerous expressions of hope by many who were present that the lectures would be printed, the matter was laid before the Syndics of the University Press and this volume is the result. It is hoped that the book will prove of value and interest, not merely to those who heard the lectures at the Cambridge Meeting, but also to a still wider circle of readers anxious to know something of the remarkable advances in Education which have been made in England during the Nineteenth Century. There is beyond question still plenty of room for reform and improvement, but when the condition of things even half a century ago is compared with the educational facilities that now exist, it is impossible not to be impressed with the important advances which have been made in many directions.

One further explanatory word is necessary. Although the lectures in one sense form a whole and deal generally with the educational advances in different departments, they were prepared by the individual lecturers quite independently of one another. Each lecturer was asked to deal with a particular subject, and in the nature of the case he had no knowledge of how the other lecturers proposed to treat their branches. It necessarily follows that the lectures are not so closely linked together as would have been the case if the lecturers had been in communication with each other when the course was arranged.

Chapters X. and XI. are the exceptions referred to at the beginning of this Preface and were not delivered as lectures at the Meeting. The question of University Extension, while

it was discussed at two informal meetings, was not the subject of a special lecture. To secure completeness however it has been thought well, with his kind permission, to insert the paper read by Sir Richard Jebb on that subject at the University Extension Congress in Paris three days before the Summer Meeting commenced. Owing to the serious illness of Dr Sidgwick, Mrs Sidgwick was unable to deliver the lecture which she had kindly promised to give, and she has been good enough to put together the material which she would have used in her lecture, in order that the important subject of the Higher Education of Women might not be entirely omitted from the volume.

In the name of the Syndicate I take this opportunity of expressing the great indebtedness felt to all the distinguished experts in Education who were so good as to accept the invitation to lecture, and who so readily consented to allow their lectures to be published in this volume.

R. D. ROBERTS.

SYNDICATE BUILDINGS, CAMBRIDGE.
14 *January*, 1901.

CONTENTS.

CHAPTER I.

PAGE

Christian Work in Public Schools, by the Rev. H. MONTAGU BUTLER, D.D., Master of Trinity College, Cambridge; formerly Headmaster of Harrow (1859–85) and Dean of Gloucester (1885–6) 1

CHAPTER II.

Some Aspects of Theory and Practice in Infant Education, by Miss AGNES WARD, Lecturer in Kindergarten Methods under the London School Board, Examiner to the National Froebel Union; and formerly Principal of the Maria Grey Training College 15

CHAPTER III.

Primary Education in the Nineteenth Century, by Sir JOSHUA FITCH, M.A., LL.D., formerly Chief Inspector of Training Colleges 34

CHAPTER IV.

Secondary Education Legislation, with Special Reference to Problems awaiting Solution, by R. P. SCOTT, M.A., LL.D., Headmaster of the Parmiter's School, and Hon. Sec. of the Incorporated Association of Headmasters . 59

CHAPTER V.

PAGE

Secondary Education of Girls and the Development of Girls' High Schools, by Miss F. GADESDEN, Certificated Student in Honours, Girton College, Cambridge; Headmistress of the Blackheath High School 82

CHAPTER VI.

The Teaching of History in England during the Nineteenth Century, by H. L. WITHERS, M.A., Professor of Education in the Owens College of the Victoria University . . 106

CHAPTER VII.

The Teaching of Science in Schools, by C. W. KIMMINS, M.A., D.Sc. (Lond.), Secretary to the London Society for the Extension of University Teaching, and Inspector of Science Teaching to the Technical Education Board of the London County Council 121

CHAPTER VIII.

Industrial Education, by Sir PHILIP MAGNUS, B.Sc., B.A., Superintendent of Technological Examinations, City and Guilds of London Institute 140

CHAPTER IX.

The Training of Teachers, by Miss E. P. HUGHES, Associate of Newnham College, Cambridge; formerly Principal of the Cambridge Training College for Women . . . 171

CHAPTER X.

The University Extension Movement, by Sir RICHARD JEBB, Litt.D., D.C.L., LL.D., M.P., Regius Professor of Greek in the University of Cambridge, and Fellow of Trinity College 193

CHAPTER XI.

PAGE

The Higher Education of Women, by Mrs HENRY SIDGWICK, Principal of Newnham College, Cambridge . . . 201

CHAPTER XII.

National Education and Social Ideals, by M. E. SADLER, M.A., Christ Church, Oxford 210

CHAPTER XIII.

Outlines of the Development of Educational Ideas during the Nineteenth Century, by W. REIN, Ph.D., Professor of Pedagogy in the University of Jena 240

CHAPTER I.

CHRISTIAN WORK IN PUBLIC SCHOOLS,

BY

DR MONTAGU BUTLER.

THE subject on which I have been called to address you is "Some Aspects of Christian Work in the 19th Century." One aspect of such work will to-day engage our thoughts. It is the efforts of good men to bring not only healthy but distinctly Christian influences to bear on our great Public Schools.

It cannot, I fear, be questioned that during (we will say) the 18th Century and, roughly speaking, the first quarter of the 19th, such distinctly Christian efforts were conspicuous by their absence. There were indeed many earnest Christian schoolmasters between 1700 and the time of Arnold; but the conception of school life as a training in Christ both for boys and masters, and the ambition of serving Christ as part of a schoolboy's school ideal—these things were either no longer or not yet.

The evidence for this conclusion is to my mind as irresistible as it is painful. I can but touch upon it. I find one admirable man, with special opportunities of judging, writing in 1844, "The tone of young men at the University"—and

he went to Balliol about 1825—"the tone of young men, whether they came from Winchester, Eton, Rugby, Harrow, or wherever else, was universally irreligious."

I find another saying, "The religious teaching in my school days was not a strong point either in or outside our Chapel." Another, "It cannot be said that our religious training was sufficiently attended to. All that my Tutor did for me at Confirmation was to ask whether I could say the Catechism, to which I said 'Yes.' In no case was Confirmation followed up by the Holy Communion; in short, as regards the school, it was, I fear, a thing unknown." This was in 1824. Yet again another witness, "At my school we were literally without religious guidance"; and yet another, "I received no religious instruction whatever of any kind"; and yet another, "In my day not only no boys took the Lord's Supper, but no one dreamed of it."

We know, my friends, that charges of this kind would not be made against the great schools now. Can we, then, fairly "locate" the beginning of a change, and can we connect the change with one or more names? I think we can.

It was in the year 1827, "the year that classic Canning died," and that saw the publication of Keble's *Christian Year*, that Thomas Arnold was elected Head Master of Rugby. He was thirty-two years of age. His friends expected much from him, and perhaps feared something. One of the "prophecies" which "went before" upon him was from his lifelong friend, Edward Hawkins, Provost of Oriel, who predicted that "if Mr Arnold were elected, he would change the face of education all through the public schools of England."

Such a testimonial, if now given to a candidate, might probably blast all his hopes. But seventy years ago the twelve noblemen and gentlemen of Warwickshire were, it would seem, men of stout heart, and prepared to stomach even a Luther. Arnold was elected in December 1827, and met his boys in the following August.

What, then, was the "aspect of Christian work" which presented itself to his eager gaze? What was his own conception of it? Had he before him any clearly cut design? Could he have said—what Edward Thring said, when asked whether the structural and other ideas of Uppingham had grown upon him as he advanced in his work,—"No, among my papers I can show you the sketch, almost in detail, of everything I proposed to do, and which you now see here, just as I made it in the very first years of my mastership"?

I doubt if Arnold, on leaving his private Tutorship at Laleham, had any such working model in his study or in his brain. At the same time, he had doubtless a clear conviction that there was a real Christian work to be done at Rugby, and that he, with God's help, could do it. Writing to an intimate friend just before the election, he says, "If I do get it, I feel as if I could set to work very heartily, and, with God's blessing, I should like to try whether my notions of Christian education are really impracticable; whether our system of public schools has not in it some noble elements which, under the blessing of the Spirit of all holiness and wisdom, might produce fruit even to life eternal."

And yet again, some two months after the election, "With regard to reforms at Rugby, give me credit, I must beg of you, for a most sincere desire to make it a place of Christian education. At the same time, my object will be, if possible, to form Christian men; for Christian boys I can scarcely hope to make."

Now, my friends, so far as I can judge, this is a new voice in the English world. The hour has come, and a man has arisen who is equal to the demand of the hour.

As to his first "throw off," there is but little evidence. I do not gather, nor is it at all likely, that he made any speech or issued any kind of manifesto on first taking office. Even his earliest published sermons do not cover just this interval of space. According to Stanley, during his first half year he confined

himself to delivering short addresses, of about five minutes' length, to the boys of his own house. But from the second half year he began to preach frequently; and from the autumn of 1831, when he took the Chaplaincy, he preached almost every Sunday to the end of his life, i.e. for thirteen years.

It is of course impossible in a lecture like this to give any adequate account of these sermons, once so famous and so potent for good. If we were to call witnesses, they would be the boys who heard them, and the readers who have loved them—the boys as painted in *Tom Brown*, and the readers, some of whom have become in their turn preachers. Hastily but very carefully written, they are not so much writing as talk—grave, very grave talk, heart to heart, soul to soul; talk from a grown-up man to boys of various ages to whom he is affectionately drawn not only by his office but by "all that is within him," and "for whose everlasting good, as Christian men," he feels profoundly responsible to God.

Such talk from a schoolmaster to schoolboys had not, to the best of my knowledge, been heard for centuries. For the last fifty years it has been heard, with more or less of likeness, and of course with very different degrees of power, in almost every boarding-school all over England.

Many new schools have come into being; some absolutely new, like Wellington, Haileybury, Clifton, Fettes, the Leys, Cheltenham; others virtually re-founded, like Sherborne, Sedbergh, Marlborough, Uppingham. Week by week a succession of Head Masters, many of them once Rugby boys or Rugby Assistant Masters, have striven hard to hold up before schoolboys not only lessons of honour and manliness and good fellowship, but lessons directly Christian; faith in Christ, brotherhood in Christ, consecration to Christ, forgiveness for Christ's sake, prayer in Christ's Name, Missions at home and abroad in Christ's Name, reverence for the poor in Christ's Name, love of Christ's Church, of Christ's Sacraments, above all of Christ's Person.

This is, surely, one "aspect of Christian work." Many grateful testimonies have been borne to the part played in it by one most faithful and true Pastor. One of these, almost too sacred to quote publicly, is in the well-known poem of his brilliant son, *Rugby Chapel.* It gives, surely, and only as poets can give, the very ideal of a Christian teacher.

> But thou would'st not *alone*
> Be saved, my father! *alone*
> Conquer and come to thy goal,
> Leaving the rest in the wild.
> We were weary, and we
> Fearful, and we, in our march,
> Fain to droop down and to die.
> Still thou turnedst, and still
> Beckonedst the trembler, and still
> Gavest the weary thy hand,
> Cheerful, and helpful, and firm.
> . . . . . .
> Therefore to thee it was given
> Many to save with thyself;
> And, at the end of thy day,
> O faithful shepherd! to come,
> Bringing thy sheep in thy hand.

There are those who have questioned both the depth and the extent of Arnold's influence. A few years ago a brilliant and not unkindly writer startled many of his readers with the following sentence: "Dr Arnold unquestionably made a deep impression on those boys who were brought into close communication with himself, but I cannot find that his influence over the school survived longer than that of any subsequent Head Master; while upon other schools, so far as I have been able to ascertain, he produced—I believe it is not too much to say—no effect whatever."

I hope I am not quite unable to enjoy a daring paradox or a delicate stroke of irony, but I must confess that this last clause produces on me much the same effect as the famous discovery years ago that "Shakespeare is a vastly overrated man."

"No effect whatever on other schools!"

We shall hear shortly the testimony of Moberly as to Winchester, Moberly, who differed so widely from Arnold as a churchman and a theologian. But what would be the witness of Prince Lee, who went from Rugby to Birmingham, after being from 1830 to 1838 an assistant of Arnold: of Cotton and Bradley, who both went from Rugby to re-found and re-inspire Marlborough; of Charles Evans, Percival, and Wilson, who all went from Rugby to found Clifton; of Benson, who went from Birmingham and Rugby to found Wellington; of Arthur Butler, who went from Rugby to found Haileybury; of Bradby, Rugbeian of Rugbeians, and of James Robertson, who succeeded Butler there; of Jex-Blake, who went from Rugby to preside over Cheltenham, and then returned to his old school, bent on renewing and deepening its old Arnoldian traditions?

No, paradox is paradox, and truth is truth. The prophecy of Provost Hawkins has been more than fulfilled. The young man who was selected by the Rugby Trustees at the end of 1827 *has*, under God, and by his quickening influence on minds very different both from his own and from one another, "changed the face of education all through the public schools of England."

But here let us guard against an obvious error. It is not of course my object to claim for Arnold that he alone originated efforts for Christianizing life and work at schools; or that the lines on which he worked were the only true lines; or that but for him nothing would have been done.

Let us pass for a few moments from Rugby to Winchester, not forgetting that Arnold himself was a loyal son of that oldest of all old foundations. Winchester has always had both her Cathedral and her school Chapel, long of course before the Reformation. Her traditions are not religious only but ecclesiastical. More than two hundred years ago, in the bad times of Charles II., we find the saintly Ken thus addressing his young imaginary schoolfellow: "O Philotheus, you cannot enough

thank God for the order of the place you live in, where there is so much care taken to make you a good Christian as well as a good scholar; where you go frequently to prayers every day in the chapel and in the school, so that you are in a manner brought up in a perpetuity of prayer."

This was the tradition. How its light had gradually waned, I do not know; but in 1835, seven years after Arnold went to Rugby, there were at least two very earnest and very able men who strove hard to revive it, Bishop Moberly, the Head Master, and Bishop Charles Wordsworth, the Lower Master. They had been simultaneously appointed in 1835.

In Wordsworth's *Annals of my Life* there are some deeply interesting particulars as to how he went to work; how he strove to make prayer in the dormitories a regular practice, and how on one memorable evening, Easter Eve, 1838, he got a promise from the Prefects to enforce silence. And this, on Wordsworth's part, was, so to speak, original. Moberly, it is true, says, "I owe more to a few casual remarks of Arnold than to any advice or example of any other person"; but Wordsworth tells us explicitly that he "knew nothing of the great work which Arnold had been doing for ten years. He had never seen or even heard of his Sermons preached at Rugby."

The work of the two friends at Winchester was mainly on what may be called "High Church" lines. Wordsworth himself writes: "The truth is, there was (in those years) a general awakening, which in many instances, as with us at Winchester, partook decidedly of a Church character, such as Arnold's teaching and example, however excellent in their way, had little or no tendency to create." This, I may say, is fully borne out by his own work, *Christian Boyhood at a Public School*, which consists of over fifty discourses delivered between 1842 and 1846.

During most of the time that Charles Wordsworth was at Winchester, his brother Christopher, afterwards Bishop of Lincoln, was working in much the same spirit at Harrow. He was

appointed Head Master in 1836, in succession to Archbishop Longley. One of his first acts, and it was a brave "venture of faith" considering the small number of boys then in the school, was to build for the first time a School Chapel. This Chapel, together with his volume of School Sermons and his work entitled *Theophilus Anglicanus*, are the chief visible memorials of his religious influence as a Schoolmaster. Himself a saintly man, of rare beauty of character, he came at an unpropitious time. He was known as a High Churchman, and in the years between the publication of *Tract XC.*, 1841, and 1845, when Newman joined the Church of Rome, a High Churchman was a "suspect."

Dr Wordsworth left Harrow at the end of 1844, and was succeeded by Dr Vaughan, who, for just fifteen years at Harrow, and afterwards for forty-three years, as Vicar of Doncaster, Master of the Temple, and Dean of Llandaff, was destined to leave a deep-set mark on the spiritual life of his time. He was known, when he came to Harrow at the age of twenty-eight, as a brilliant Cambridge scholar, as the son of that "Vaughan of Leicester" who was for many years an enlightened leader in the Evangelical party, and above all as a favourite pupil of Arnold. The two Head Masters were singularly unlike each other, in look, in voice, in manner, in range of learning, in variety of interests, in theological bias. But there can be no doubt that Vaughan brought to the service of Harrow much of the Christian spirit of Arnold, besides those keenly tempered gifts which were peculiarly his own. He was far indeed from being a copyist of any man. He was even jealous of its being supposed that life at Harrow was in any way an imitation of life at Rugby. But writing at the close of his first year at Harrow, 1845, in the preface to his first volume of Sermons, he could not but own his debt to his great master so lately and so suddenly called away. "It will," he says, "be seen at once how much help I have derived, in the subjects of some, and the general tone of all, from those addressed by Dr Arnold

to a like congregation. I find more and more how widely he has occupied this ground."

I must not attempt to describe the "Christian work" which Dr Vaughan attempted and carried through during his fifteen years at Harrow. My judgment of it, even if true, would certainly not be impartial. He has laid me and hundreds of other pupils under such spiritual obligations as make impartiality a heartless phrase. But I can say, without reserve, that at no time in my life have I been so conscious of living in a directly Christian atmosphere, with Christian ideals of duty habitually set up for reverence, as during the happy years when he presided over Harrow. The main cause was no doubt his impressive personality; his remarkable combination of deep devoutness with wit, penetration, and delicate sympathy; his quiet tenacity of purpose, and an inborn almost humorous sense of masterfulness which no softness of manner could disguise. But doubtless the spell of this personality was confirmed week by week by his admirable sermons, so keen in their insight, so tender in their touch, so winning in their expression, so rich in the fulness of Christ.

It is easy to overrate, but it is quite as easy to underrate, the lasting power of sermons. All I can say is, and many still living would gratefully concur, that these sermons of our dear master, as summed up in his *Memorials of Harrow Sundays*, have been to hundreds of us the day-star of our lives.

No sketch, however slight, of Christian work at Public Schools can omit the thirty-four years of Edward Thring at Uppingham. Beyond all doubt he was a most original man. His ideas, his plans, his methods, his manner of speech, his whole bearing towards Trustees and Commissioners, boys and masters, were his own. Consciously, he borrowed nothing. He framed his schemes early in life, and pushed them forward with the energy of a Cæsar.

From first to last he was haunted by one fruitful thought: no boy at school was fairly dealt with unless his surroundings

were favourable to his health, physical, mental, and moral. The schoolrooms must be large, light, cheery, well furnished with good desks, seats, maps, and the like. The large room in which they met must be stately. The Chapel must be noble, awe-inspiring. In the long run, what he often humorously called the "almighty wall" must tell upon the feelings, the imaginations, the memories. By the "almighty wall" I understand him to have meant all that is structural and material. They are not the highest things in education; but unless they are high, the highest cannot be attained. Sordid surroundings, overcrowded boarding houses, black, forbidding, low, ill-lighted rooms, anything suggestive of the barracks or the workhouse—these are an insult to a liberal education.

He himself once explained very clearly to his Trustees, after they had had twenty-two years of him, without perhaps even then understanding him, what had been his aims since he first entered their service. "The two facts," he said, "on which the present school has been built up are very simple and easily stated. They are these two truths: *Firstly*, the necessity in a true school that every boy, be he clever or stupid, must have proper individual attention paid to him. If he has not, the boy who has not, so far as he is neglected, is not at school.

"*Secondly*, that proper machinery for work, proper tools, of all sorts, are at least as necessary in making a boy take a given shape, as in making a deal box. Out of these two axioms," he continues, "the present school of Uppingham has grown."

Had he desired to formulate the chief *moral* aim of his school, he might have said "true work"—no shams, no half and half, no shirking, but good, true work by every boy, because every boy can do something well, at all events he can do his best.

All that has been said so far might have been said of *any* original, clear-sighted, conscientious man. But Thring was

much more than this. He was also a humble, brave, fervid Christian. His faithful pupil and biographer, Mr Parkin, is certainly not going one whit beyond the truth when he says "that no one can gauge Edward Thring's work and character unless he understands the supreme influence on his life of the belief, nay, the passionate conviction, that education was in a special sense a work for God. The feeling indeed that in training young lives he was doing a special and direct work for God dominated his own life and all his views of school life. It gave him his starting point for practical work."

Yes, my friends, of the many holy men and women who, in this fast fleeting century, have done good "Christian work" for God, a high place must always be accorded—little as he would have cared for any praise but the love of his old pupils—to the devotion, the faith, the patience, the trust, the dauntless self-consecration of Edward Thring.

Five years after the re-founding of Uppingham another Founder appeared on the scene. In the spring of 1858 Edward White Benson was appointed the first master of Wellington College. Few men could be less like one another either in appearance or in character than Benson and Thring. Yet in reading what is written of the one Founder one is often reminded of the other; for each was essentially original, creative, constructive, autocratic, "fervent in spirit," rapid in temper and in action.

The following sentences by a shrewd friend of Benson have quite an Uppingham ring. "He at once impressed me with confidence and interest. The masters were made to feel from the first that they were helping to work out a new plan. Instinctively we saw that there were grand possibilities in the College as it grew under his hand....There was very little experience among the masters, but much enthusiasm. He taught us one great lesson—to be self-sacrificing for the College, to be ready to give, and to enjoy giving, time, money, thought, and whatever ability we possessed, to its development

on every side, to the building and decoration of the Chapel, to the organization of the games and of the work in school."

As to the directly Christian aspect of his work, it is perhaps enough to remember that he became the Chancellor of Lincoln, the Bishop of Truro, and the Archbishop of Canterbury. "There was nothing in his whole Wellington life," so his son tells us, "in which my father took such constant delight as the Chapel and the Chapel service." He preached regularly, so we learn from his widow, every Sunday morning. He used to think of the sermon during the week, but he seldom put pen to paper till the first service was over, about 10 o'clock. And he had to preach the sermon at the 12 o'clock service.

Those who know his *Sermons on Boy-Life*, and how packed they are with thought as well as feeling, may be surprised at this seeming hurry; but when the heart of an able man is full, it becomes "the pen of a ready writer." It was the same with the simple, massive talk of Arnold and the finished, tender appeal of Vaughan. Both were produced at what might seem to some "fever heat," but there was no other sign of fever in them.

There is yet another piece of constructive and eminently Christian work which I can but touch. I refer to the almost heroic achievement of the late Canon Woodard. It is right to own that I have no first-hand knowledge of himself or his system. But there may be some here who, like myself, may be not only gratified but even startled to learn how vast a bulk of Christian work in the cause of education stands credited to his name. His working years were, roughly speaking, from 1851 to 1880, much the same period as that of Thring. He conceived the grand design of founding, by means of a society, all over England three distinct grades of schools, for the gentry, the upper middle class, and the poorer classes. These schools were avowedly on High Church lines, "in the doctrines and principles of the Church now established, and under the direction of clergymen and laymen in communion with the Church."

Already upwards of half a million has been expended on this group of schools. From the short account of the Founder in the *Dictionary of National Biography*, I gather that there are at least nine of them for boys, and at least three for girls. Many thousands of boys and girls must already have been trained there. A great work for forty years! That great preacher and thinker, the late Professor James Mozley, has devoted to these schools three of his most thoughtful sermons.

"And what shall we more say? For the time would fail me to tell of" other Christian foundations; of the High Church College at Radley, founded by Sewell; of the Wesleyan, "The Leys," founded by Dr Moulton, here at our very gates; of the Evangelical work at Liverpool College by Conybeare, Dean Howson and Canon George Butler; or again at Repton by that admirable man Stewart Pears, whom I remember in my boyhood as an Assistant Master at Harrow. Still less is there time to enter upon another great parallel movement, the widespread establishment of Schools for Girls, like that founded by Miss Buss in North London, which only a few months since held its solemn Jubilee in St Paul's Cathedral, the roll of benefactors being read out by the Bishop of London, and the sermon preached by the Archbishop of Canterbury.

My friends, I have told you a long story, and yet you must see that our chief difficulty has been to suppress.

The last three-quarters of our century must always surely stand out well in the records of Christian work at our Public Schools. The evidence is complete that the effort not only to improve their intellectual culture but to penetrate their life with the true Christian spirit has, at least since the time of Arnold, been earnest and continuous.

Is there any reason to fear that the tide so long flowing is beginning to ebb? One fact is certain that the proportion of clergy to laymen among the Masters is nothing like what it was even twenty years ago. It is more and more difficult—I speak as a Governor of four of our chief schools, and as one intimately

acquainted with many others—to secure as a Head Master a man who is at once in Holy Orders and also in the very front ranks of University distinction. I hold it to be certain that during the coming century the chief posts at the Public Schools will be largely held by laymen. Nor would this prospect have any terrors for me if only it be understood by the coming generations, as it has been by our own, that one of the chief qualifications for a Head Master is to care for the spiritual growth of his boys, and if, in consequence of this belief, it be one of his recognized duties to speak to them constantly, if not weekly, from the Chapel pulpit. This has been done already by laymen from not a few pulpits, and with the happiest results. It is by extending this system far more widely, and, if necessary, removing any legal obstacles, that I seem to see the best guarantee for the maintenance of what has been, under God, one of the chief religious forces of our time.

A Head Master of a boarding-school who had no desire to speak habitually to his boys of God, of sin, of the words and works of Christ, of the consecration of their lives to Christ, both in boyhood and manhood, would in my judgment have mistaken his calling. A Head Master, whether lay or clerical, is a Pastor, or he is nothing. That lesson at least has been taught us by one aspect of Christian work in the reign of Queen Victoria.

CHAPTER II.

SOME ASPECTS OF THEORY AND PRACTICE IN INFANT EDUCATION,

BY

MISS AGNES WARD.

[The writer desires to acknowledge the help derived from, amongst others mentioned in the text, *The Child and his Book*, Mrs Field; *Child Life in Colonial Days*, Mrs Morse-Earle.]

YEARS before the 19th Century dawned Saint-Cyran (that great, if sombre, genius who moulded Jansenism and withstood the Jesuits in the heyday of their power and success) defined the teacher's calling as *une tempête de l'esprit.* The phrase is significant. Uttered 100 years before Rousseau's decisive dogma, that in "the return to Nature" lay the universal panacea for all the ills of a rotting civilisation, Saint-Cyran's phrase went, sounding at once the knell of hope and ringing out that irresistible summons to pity and tenderness in dealing with the weakness and ignorance of childhood which sanctifies and irradiates the Jansenist conception of education.

Two hundred and fifty years have passed since Saint-Cyran's incisive phrase rang out: but whether its echoes are yet silent may well be doubted by those who note the confused and con-

fusing ideas which inspire our theory and practice of education in the present day. The confusion probably lies rather deeper than at first sight appears. I hope to indicate what I take to be one of its causes, and, if I do not seem unduly optimistic, to suggest the lines on which some result more consoling, some vista more inspiring, may be reached.

When the 19th Century opened the child was still in disgrace,—except from the point of view of the Revolutionary theorist. The costumes of children in the first half of our century are not without significance. They are in general abbreviated editions of those worn by their elders. Frills, feathers, reticules, sandals, shoe buckles, trousers and short-waisted jackets remind the child at every turn that he is a growing animal, immature and therefore awkward—a being whose very clothes emphasize the antagonism between his physical instincts and the demands of conventionality. Clothes are, as a matter of fact, the first signs which a child understands from close personal experience of the restrictions imposed by an alien civilisation on his nascent liberty. Locke, as we all know, advocated bad shoes as a necessary part of that hardening practice which physically he desired: Rousseau, wiser amid all his extravagances than Locke, attacked swaddling clothes, heated rooms, unnatural diet, and eloquently and forcibly preached the duty and necessity of personal hygiene, of simple habits, of fresh air and activity, of a development of self-reliance in place of luxurious habits, dependence on others, and artificial standards of life. But in spite of teaching such as this, the Infant of the 19th Century was still tied and bound in garments which,—however much they delighted adult relations,—must have worried and heated and pricked and scratched the tiny, soft-fleshed, gelatinous baby. Conservatism in baby-clothes is, when we consider the point, still stubborn. In the Tudor Exhibition of some few years ago some baby-clothes were exhibited. These were said to be the work of the Princess (afterwards Queen) Elizabeth for the expected child

of Mary Tudor. In fashion and execution they differed scarcely at all from the modern layettes with which the modern baby of well-to-do parents is greeted,—and tortured. After infancy, clothes became for children much what they were for adults, but fashioned with a determined intention of hardening young lives and innuring them to extremes of temperature. Bare arms, necks, chests, legs, were the rule and a rigorous enforcement of early rising, chilly rooms, and cold water was common enough to make us believe that Charlotte Brontë's picture of Cowan Bridge is not exaggerated[1]. Indeed we need but turn to Arthur Young's Autobiography and read the touching pages which record the brief school experiences of his darling little daughter in 1797 to realise how, even in the case of the well-to-do, the physical helplessness of childhood was treated.

"I brought my dear angelic child (aged 14) with me (*to London*) who went to school in January in good health but never in good spirits for she abhorred school. Oh! what infatuation ever to send her to one. In the country she had health, spirits and strength, as if there were not enough with what she might have learned at home, instead of going to that region of constraint and death Camden House. The rules for health are detestable, no air, but in a measured formal walk, and all running and quick motion prohibited. Preposterous! She slept with a girl who could hear only with one ear, and so ever laid on one side; and my dear child could do no otherwise afterwards without pain; because the vile beds are so small that they must both lie the same way. The school discipline of all sorts, the food, etc., etc., all contributed. She never had a bellyful at breakfast. Detestable this at the expense of £80 a year. Oh! how I regret ever putting her there or to any other, for they are all theatres of knavery, illiberality and infamy! Upon her being ill in March I took her to my lodgings in Jermyn Street where Dr Turton attended her till April 12, when I carried her to Bradfield. He certainly mistook her case entirely, not believing in a consumption, and by physic brought her so low that she declined hourly; he stuffed her with medicine at a time when sending her at once to Bristol or even to Bradfield, she went little more than skin and bone, with prescriptions for more physicking under a stupid fellow at Bury till she was a spectre. On June 13, she went to the Smith's (Bradfield

[1] See also *Recollections of Life and Work*, Louisa Twining, Chapter II.

neighbours) and there complained 'that such a young girl as I who came for air and exercise should be thus crammed with physic.'

Poor thing! her instinct told her it was wrong, but she submitted."

(*Autobiography of Arthur Young.* Edited by Miss Betham-Edwards, pp. 263—4.)

Thus far "that wise and honest traveller" as Mr John Morley calls Arthur Young. Charles Dickens writing of the state of boarding schools such as Dotheboys Hall probably did not exaggerate the general features of ignorance and neglect which marked too many. It was only between 1852—59 that Mr Spencer published his striking chapters on *Education*, and thus gave a vague currency to the idea of infancy as an age with physical requirements of its own. If these are ignored the later work of those whose profession it is to care for childhood is hindered in no slight degree. Far less by the intelligence of teachers than by the work of scientific men we may, I believe, claim that at least a glimmering consciousness of the child's right to live his own life more or less at his own pace is, physically speaking, conceded—now-a-days—by all who consider themselves enlightened.

As to formal education in the early years of the century it is difficult to choose the sources of our information. But perhaps we may safely take as our guides some of the writings designed especially for what are called Infant minds.

A little book (published in London 1778) called *Lessons for Children of Three Years Old* is before me. It is well printed, with good margins and bold type and is meant to be a first reading book. It served indeed as this to the great-grandfather of a friend of mine. What strikes the modern critic most in this and like booklets is the general formal courtesy of the language employed and that the difficulties of thought and language are neither graduated nor explained. There is (luckily) little or no explicit moralising but moral lessons of an unmistakable nature are enforced by stories: the child who is cruel to a robin is abandoned by his parents and friends and finally eaten

by a bear in a wood in the good old direct fashion. We are *not* informed as to what becomes of the parents and friends—nor what kind of a bear in a wood it is which eats the boy: points which the modern "restless" curiosity would no doubt insist upon elucidating. The child in this and like books is tacitly held to be silly *because* he is little: to be "grown up" is more or less explicitly taught to be synonymous with wisdom. *Models of Juvenile Correspondence* (date 1803) are given in a volume of *The Bookcase of Knowledge.* I quote the preface and two of the model letters supplied.

JUVENILE CORRESPONDENCE.

TO OUR YOUNG READERS.

To be capable of carrying on an epistolary correspondence with ease and credit to yourselves, is what we hope you will all endeavour to accomplish. The hints necessary to facilitate this important branch of education, are but few and we give them with the sincerest wishes they may be attended to. Let your language be natural and easy, avoid all high-flown far-fetched expressions and all useless repetitions; to your superiors, write with a becoming confidence, neither assuming nor servile; to your equals with an engaging freedom; to your inferiors with an affability that may prevent their feeling their inferiority; to all with respect; in a word, express your thoughts in writing as you would in speaking.

With these rules and a few specimens which follow, you will soon find the practice become delightful.

From a Young Gentleman to his Acquaintance.

DEAR SIMPSON,

We have been at Windsor and I must confess it is a most delightful place. We have passed our time very agreeably; yet I must own that there is nothing like home and my books. I am very much fatigued with the journey, and can only add that I am,

Your sincere friend,

And humble servant.

To a Young Gentleman on the recovery of his health.

The answer.

DEAR SAM,

I receive your obliging letter, which contains a fresh mark of your friendship for me. I am now, I thank God, perfectly recovered.

I know not, whether I should not consider my last illness as a punishment for my crime in robbing Mr Freeman's orchard, breaking the boughs, and spoiling the hedges. However, be that as it may, I will do so no more.

Believe me ever,

Your real friend,

And schoolfellow.

The volume devoted to Natural History in this *Bookcase of Knowledge* gives short accounts of animals of which I quote those descriptive of the Hen and the Peacock.

The Hen. The material assiduities of the Hen are become almost proverbial. When her chickens are old enough to provide for themselves, she abstains from all the food that her young can swallow, and she will boldly fly at every creature that she thinks is likely to injure them. In this domestic creature we have a striking instance of the goodness of our Creator, for while her young supplies (*sic*) our tables with the most delicate food, her eggs contribute to restore to health the sickly and weak.

The Peacock. Peacocks were first introduced into Europe from the Asiatic Indies. When it appears with its tail expanded, none in the feathered creation can vie with it in elegance and magnificence, but the harsh scream of its voice diminishes the pleasure received from its brilliancy, while its insatiable gluttony tend (*sic*) still more to alienate our attachment from the only merit which it can claim, its incomparable beauty.

The little girls whose brothers were desired to write such letters passed many hours of their lives in needlework—especially in working samplers.

So high an authority as Miss Twining, born in 1820, bears this interesting testimony to the use of such employment.

"Needlework was an important part of education in those days and samplers were an invariable performance. At six years old I worked one in cross-stitch letters, with the alphabet and numerals, and, of course, appropriate mottoes, one of which I remember and have acted upon since, 'A stitch in time saves nine': however defective in rhyme, it is wise and useful. This was followed, by a still finer sampler, two years later, when we spent the summer at Tunbridge Wells, one motto being singular for a child of eight, 'After labour rest is sweet,' a prophecy which was to be

fulfilled after a long interval, by my removal to the same place, in search of repose and quiet after the work of my life was, as I supposed, nearly finished. Intense enjoyment was caused by these little performances and I doubt if any kind of needlework for children of the present day can furnish occupation so useful and so pleasant."

Recollections of Life and Work, Louisa Twining, pp. 33, 34.

A recent Exhibition of samplers (1900) showed the kind of verse employed: here are one or two examples from the catalogue:

1798. Vase of flowers, trees etc.

"O may Thy powerful word
Inspire a worm
To rush into Thy Kingdom Lord
& take it as by storm."
Sarah Becket, aged 8, December 1798.

1814. Alphabet and verse.

When I was young and in my prime
Here you may see
How I spent my time.
"Aged 6."

In the most interesting Journal of Emily Shore (who was born in 1819) mention is made of a *Bookcase of Knowledge*. Could it be that from which I have been quoting? If so how curious is the contrast between her methods of studying natural history,—so delicate, candid, persevering,—and the pompous fatuities of the *Bookcase of Knowledge*! Emily Shore in her quiet country home watching nature with keen, loving observation learns at every turn some new and illuminating truth as to bird or plant. She is the fit contemporary of Darwin,—fit no less by her modesty than by her method.

These specimens of literature and hard work for the very early stage of childhood cannot be taken in isolation. They should be classed with the writings of Dr Watts, Jane and Ann Taylor and Mrs Sherwood (1775—1851). Dr Watts' *Divine and*

Moral Songs[1] influenced, and even formulated the theological ideas presented to children during the first fifty years of the century—ideas which are perhaps still current to-day. It is no exaggeration to say that the *Divine and Moral Songs* and the *Fairchild Family* sum up the Evangelical movement in all its terrors for the nursery. God is an awful and vengeful master who teaches by striking and terrible object lessons. Endless torment, clanking chains and bitter remorse are the fate of the nursery Ananias: while both Mrs Sherwood and Dr Watts persistently represent the child's *heart* as his direst foe[2]. The *Fairchild Family*, which was amazingly popular and widely known, has still a fascination for the student. Mr Fairchild, the father, observing his three children of 6, 7, and 9 quarrel, takes them a walk through a gloomy wood in which clanking metallic sounds are heard; these proceed from a gibbet on which a corpse is hanging. The children, two girls and a boy, implore to be taken away but the father declines; seats himself with great deliberation on the stump of a tree and (with quite needless elaboration) tells the story of the poor wretch to the

[1] In Dr Watts' wonderful book he deals incidentally with the animal world. Here is a specimen of his teaching:

> "If we had been ducks, we might dabble in mud,
> Or dogs, we might play till it ended in blood,
> So foul and so fierce are their natures:
> But Thomas and William, and such pretty names,
> Should be cleanly and harmless as doves or as lambs,
> Those lovely, sweet, innocent creatures."

We all remember Dr Watts' lines on "the little busy bee." Whether he thereby made the bee attractive or instructive in any desirable sense to the child may well be doubted.

[2] In this connection we may note that Dr Arnold, appointed Headmaster of Rugby in 1827, writing in 1830 to a friend owns himself amazed, bewildered and depressed by the deep roots which sin struck in the hearts of the very youngest of his boys: boys in his day (he died in 1842) went to Rugby when between 7 and 8 years old. Observe the uncompromising word *sin*: not temperament, or impulse, or inherited tendency: none of our temporising, picturesque vagueness: but *sin*—and nothing short of it.

shivering children who exhibit the greatest interest—but still implore to be taken away. "We will go immediately," said Mr Fairchild, "but I wish first to point out to you my dear children that these brothers, when they first began to quarrel in their play, as you did this morning, did not think that death, and perhaps hell, would be the end of their quarrels. Our hearts by nature, my dear children," continued Mr Fairchild, "are full of hatred."

And so on, till after a self-complacent account of his own new heart, Mr Fairchild ceases and Lucy (age 9) suggests a prayer. '"Willingly, my child," said Mr Fairchild. So he knelt upon the grass, and his children around him; and they afterwards all went home[1].'

Mrs Sherwood was an indefatigable writer for children and her books may be fairly taken to contain the ideas current in middle class society as to child nature and child intelligence. Habits of introspection and self-examination were fostered, as the following extract will show.

Lucy Fairchild's Journal, written when she was 9 years and a half old.

"When I woke this morning, mama called me to make my bed; and I felt cross and wished I was like Miss Augusta Noble, and had servants to wait on me; and that Lady Noble was my mama and not my own dear mama.

Mama gave Emily a bit of muslin and some pink ribbon; and I was envious and hated Emily for a little while though I knew it was wicked. When Papa gave Henry the strawberry, I was angry again: and then I thought of Mrs Giles who loves one of her little girls and hates the other. I thought that my Papa and Mama were like Mrs Giles and that they loved Henry and Emily more than me. When papa was reading and praying I wanted to be at play: and was tired of the Bible and did not wish to hear it. And then I thought a very bad thought indeed! When Mrs Barker came I despised her for not being pretty, tho' I knew that God had made her such as she is and that he could make me like her in one moment."

As soon as Lucy had finished writing these words, she heard her mama come upstairs and go into her room: she immediately ran to her and

[1] *Fairchild Family*, 19th Edition, 1853. Vol. I. pp. 59, 60.

showing her the book, "O mama, mama," she said, "you cannot think what a wicked heart I have got! Here is my journal; I am ashamed to show it to you: pray do not hate me for what is written in that book."

(Mrs Fairchild replies suitably.)

Then Mrs Fairchild gave the book back to Lucy and told her to continue every day to keep an account of what passed in her heart, that she might learn more and more to know and hate her own sinful nature. After this Mrs Fairchild and Lucy knelt down and confessed before God the exceeding vileness of their hearts as follows.

(Here follows a prayer entitled, 'Confession of the exceeding vileness of our hearts.')

One of my correspondents in writing of this book says: "The Fairchild Family used to send me to bed when I was a little child, to dream of an angry God and a torturing hell before I knew what wickedness was." A loving and gentle father told his only child, a contemporary and friend of my own, that he clearly remembered that at the age of six or so (which would take us back to about 1815) he used to contemplate his arms and legs and reflect on the probability of their burning in hell[1]. So late as the year 1868 his daughter remembers hearing him exhort his Infant School children (he was a Scotch minister) to do the same. This sort of teaching, with the unlimited and indiscriminate reading of the Bible, no doubt strongly influenced children of an imaginative or sensitive turn.

In a booklet, published privately in 1881 and entitled *The Little Girls of Fifty Years Ago*, we have a record of an English child between 1820 and 1830. In this booklet reference is made to a conscientious father who forces himself to take his little girl to see a criminal hung as a lesson against crime in general. The child fainted and suffered acutely from the experience.

We may thus infer that the example of Mr Fairchild and the teaching of Dr Watts bore fruit of a bitter kind for children. What strikes one, indeed, in the first fifty years of the century,

[1] Cp. Calvin's vision of children in hell a span long.

is the place which, educationally, fear held. The Scotch minister already mentioned used to quote, in proof of his baby daughter's sensitive conscience, how that he had found her, at the age of two and a half, sitting in the middle of the room "in an agony—but a perfect agony of conscience" because she had thoughtlessly run near a window which she had been forbidden to approach. From whatever cause, we of to-day have to deal with a race of practically fearless infants,—fearless, that is, in the sense of having few or no terrifying illusions. An infant between three and four years old in an elementary school in London recently gave it as his opinion that "bogies were things to frighten kids with." This attitude towards the unknown has, I believe, in very large part superseded that of Charles Lamb towards "Witches and other night fears."

With all these terrors awaiting wrong-doing, it must be owned that children of the Fairchild type were, when once they began a downward course, naughty in no temperate measure. Here is an abstract of a right royal day of childish wrong-doing as they conceived it. The record is made the more complete when we remember that the parents had been obliged to leave home for the day, and consequently the children were doubly naughty in being naughty.

1. They over-ate themselves at breakfast with buttered toast, after having played in their bedrooms and neither washed their faces, combed their hair, or prayed.

2. They began to learn lessons, but had eaten too much to do so. They quarrelled.

3. A little pig was seen in the garden.

4. They chased it over a spring and got up to their knees in mud.

5. They ran on to a farm kept by Mr and Mrs Freeman, with whom they were forbidden to associate.

6. Mrs F. saw them, brought them in, and dried their clothes.

7. Mrs F., finding them unwilling to stay all day and play with her children, gave them cake and cider.

8. They all became tipsy and fell down in the lane: their heads ached, and they sat down by the road and there John found them.

9. They told lies as to where they had been, and were locked in their playroom till dinner.

10. They made good resolutions.

11. They dined on apple dumplings, and were then told to play in the barn and not to leave it till supper.

12. They spied a forbidden swing tied up, and loosed it, Henry tearing his coat as he did so.

13. Emily, insisting on being swung higher and higher, fell out and bled from mouth and nose.

14. John to the rescue. Emily's nose, eye and lip were swelled and two of her teeth were out.

15. John tied Lucy and Henry with his blue pocket-handkerchief to the kitchen table, and placed Emily in a little chair by the kitchen fire.

16. They remained so till nearly dark, when the parents returned, and Lucy fell on her knees and confessed.

The history of *Sandford and Merton* by Thomas Day cannot be passed over in silence. The author was an ardent admirer of Rousseau's *Emile*, and his book, published in 1783, ran through many editions. I have been using the 9th, published in 1801. It is "a work intended for the use of children," and follows the simple idea of establishing a strong contrast in health, happiness and intelligence between the rich man's family and that of the farmer. The rich man's son Tommy and the farmer's son Harry are confided to the care of Mr Barlow, the neighbouring clergyman, who declines to receive any money for his services. The teaching he gives is,—entirely *à la* Rousseau,—science, and moral precepts. The result is that Tommy, the rich boy, doffs his best shoe-buckles, combs the powder from his hair, forswears his curls, and informs his mother that "from this time I shall apply myself to the study of nothing but reason and philosophy: and therefore I have

bid adieu to dress and finery for ever." This determination on the part of an infant between six and eight years old leaves but little for formal educators to effect.

No account of ideas current as to children in the first half of the century would be even outlined which omitted the work of Wordsworth. To most of us he is known in this connection by his immortal *Ode on the Intimations of Immortality from recollections of early childhood* and by little else. The first four stanzas of the Ode were written two years before the rest and the whole dates from 1803—6. A new conception of childhood is here presented,—one entirely different from that which filled the minds of Dr Watts, Mrs Sherwood and the Taylors,—though the genius of Jane Taylor, if left to itself, would probably never have bowed before the sombre teaching of Dr Watts. "Simplification was the keynote of the Revolutionary time," says Mr John Morley in his introduction to the complete edition of Wordsworth, and he proceeds to show how Wordsworth was affected by it: "Simplification of life and thought and feeling was to be accomplished without summoning up the dangerous spirit of destruction and revolt." Of this simplification Wordsworth stands out as the literary and philosophic type and in the *Prelude*, begun in 1799, finished in 1805, and published in 1850, we have, as a recent writer[1] has pointed out, a very pregnant and significant study in education.

From poems such as "*We are Seven*," "*To H. C., Six Years Old*," the *Ode* already mentioned, Book III. of the *Excursion* and the lines entitled "*Characteristics of a Child three years old*," written in 1811, no less than from the *Prelude*, we may gather a new and consoling conception of childhood. Education to Wordsworth is no longer *une tempête de l'esprit*; nor is it necessarily, as with Rousseau, a war on society. By 1803, Pestalozzi, that well-nigh divinely-inspired worker, had stumbled on to his best work. Between 1799—1804, while at

[1] Wordsworth's *Prelude as a Study of Education*. James Fotheringham.

Burgdorf, he had found the true lines of his activity and had definitely decided that the elements of knowledge were three,—number, form, language. It was to simplify these, and by so doing "to psychologise instruction" that he worked for the rest of his life, which ended in 1827. In 1799 Herbart, then a keen, young philosopher, visited Burgdorf and instantly saw the value of Pestalozzi's method and the significance of teaching by *Anschauung*. This, as bringing the child face to face with real objects, and as appealing directly to innate power, was, in the Pestalozzian School, to replace the older rote-learning—the learning, that is, of other people's thoughts in other people's words. It was thus that the irresistible scientific movement of the Encyclopædists came to influence the schoolroom curriculum of the younger pupils, and it was thus that Rousseau's phrase, "the return to Nature," came to have a direct and fruitful bearing on the work of Pestalozzi. His poverty, his enthusiasm, his zeal, his imaginative conception of citizenship, all helped. Here were the poor and needy; here was the Fatherland: how unite them? Both suffered in isolation: united they might both prosper. It is partly this enlightened view of teaching as a work which tends as no other does to solidify and raise the Fatherland, and partly that tender love for children which impelled him that makes Pestalozzi so grand and yet so pathetic a figure. Nothing quite spoilt him,—not even success,—not even crowds of visitors,—among whom we English may reckon Miss Edgeworth and Dr Bell. He still stands there, indefatigably striving "to simplify the elements" for little children,—recording his conviction that "the leading principle of education is not instruction: it is love."

The Pestalozzian method seems to have reached England early in the century, and to have influenced schoolroom traditions in the direction of teaching *from* things instead of merely *by* words. But, in education, as we all know, a method is one thing in one pair of hands and quite different in another. We

can all testify to the occasional stupefying effect of what are called Object lessons. And yet the idea that, innate power once developed, the child would teach himself from his surroundings was a very valuable idea for the schoolmaster to apply *in the schoolroom*, and this became possible, if not inevitable, to those who studied Pestalozzi. The main revolution thus created was the destruction of the partition wall between real life and schoolroom life. The child, in the Pestalozzian School, learnt that the selfsame powers and activities which made "mischief" so entrancing out of school—the desire to observe, to investigate, to experiment for himself—were the very same powers and activities which would avail him most in the schoolroom.

Froebel, who visited Pestalozzi in 1805 for a fortnight, and again in 1808—10 for two years, saw the value of this for a stage below that of the schoolroom proper. No less imbued than Pestalozzi with the importance of working *at* the individual *for* Society and at Society for the individual, Froebel, though his scope and aims differ from those of Pestalozzi, elaborated his kindergarten system and invented an apparatus which is complete, flexible, adaptable, for giving the child, whatever his race or tongue, elementary notions of number, form, colour and language,—the four elements, as Froebel held, of all knowledge. But to say that Froebel's contribution to the problems of Infant Education consists in bricks, in mat-plaiting, in chequer-drawing, and in clay-modelling, is to give proof of signal incapacity for appreciating his true work. In truth, some of us have, in moments of despair, almost regretted that he ever elaborated his concrete instruments. They have no doubt often been stupidly used and allowed to obscure the principles which they should, in part at least, elucidate.

His conception of childhood has much in common with that of Wordsworth, as will be apparent to those who read the *Mother's Games and Songs*, the *Education of Man*, and the

poems of Wordsworth, which I have already mentioned[1]. In part this conception must, as I believe, be discarded by the really observant and devoted teacher: and it must be discarded because it is not borne out by experience. Our modern infants do not always,—so far, at least, as I may speak from experience,—trail clouds of glory about them in our infant school-rooms of to-day. But Froebel and Wordsworth are still wise in bidding us take heed to train and develop that nobler and purer self which no less an authority than Herbart insists does exist in all. It is in training and developing the *ideal* self that we may make it the *real* self: and this is specially the right line on which to work in the early and essentially plastic years of life.

The idea that hand-work and head-work should be simultaneous and mutually complementary, stimulating and suggestive, is the root idea of that perpetual realisation of thought in act on which Froebel places such emphasis[2]. His own reminiscences of childhood led him to desire ardently that the wearying sense of contradiction, of fragmentariness, of antagonism, which so often disturbs or even arrests mental development should be provided against. Thus harmony is his great watchword: it is in an atmosphere of harmony that the religious and consoling idea of the unity of all life must become the central truth to the individual.

Students of Froebel find it at times difficult to follow his philosophy, and no doubt he lacks lucidity in exposition; but if we remember that many of his favourite words and phrases are those of contemporary philosophy his meaning will become easier to grasp.

Kindergartens were first opened in England in the early fifties, but England is hard to move in matters educational. Still, two results began, by slow, insidious degrees, to make

[1] See also *Froebel and Education by Self-activity*, by H. C. Bowen, especially Chapter IV.

[2] See *Education of Man*. Trans. by W. N. Hailmann, pp. 30—39.

themselves felt: first, *that teaching of all elements should be in the concrete*; second, *that teachers, especially of little children, should, in addition to receiving a sound, general education, be specially prepared for their work.* I am not defending the way in which these ideas were carried out in the past or are carried out in the present: I simply note them as being, in my opinion, mainly due to Froebelian influences. I regard them as blessed ideas both for teachers and children, and I therefore bow reverently before the genius who forced us to give them even that imperfect and halting trial which is all we can claim to-day as having been won for them. The blessedness of getting hold of a vital idea in education is after all this: that no amount of stupidity in application can really kill it. One day, after ages of bungling, of stripes and tears and theories and pedantry, we hit upon the true application, and lo! the idea is there unspoilt, and goes forth blessing and to bless.

In other directions Pestalozzi and Froebel are influencing us; perhaps it would be truer to say that they are beginning at last to influence us. Their influence may be recognised in the happier tone of our schoolrooms, in the greater freedom of our tiny pupils, and in our more effectual knowledge of child-nature, in spite perhaps of what is fashionable to-day under the title of Child-Study.

In 1802, Charles Lamb, writing to Coleridge, regretted the substitution of Mrs Barbauld's "stuff" and Mrs Trimmer's "stuff" for all the old classics of the nursery. He deplores the loss of *Goody Two Shoes*, of which, as we know, Goldsmith was believed to be the author[1]. Mrs Trimmer, if we judge her from her once widely-read *History of the Robins*, does really deserve the epithet which Charles Lamb uses: but I demur to it being applied to Mrs Barbauld's Prose Hymns.

"Hang them!" writes Charles Lamb, "I mean the cursed Barbauld crew, those blights and blasts of all that is human in

[1] See in *Journal of Education*, Nov. 1900, a letter from Mr Charles Welsh on this point.

man and child." The delicate, fanciful genius which created that exquisite "*Dream Children,—a reverie,*" redresses the balance for us—the balance upset by the correctors of youth *à la* Trimmer or their instructors *à la* Barbauld. The moral and edifying tale is rare to-day; we have books for children which, without being written down to what we poor grown-ups suppose to be their level, do aim at delighting, refreshing, and interesting their readers.

Miss Martineau's *Settlers at Home* and the delightful *Crofton Boys* came before the century was fairly middle-aged: in its old age it was cheered by *Alice in Wonderland*, and in its dotage comes the *Jungle Book*.

In conclusion, the story of Infant Education in England during our century is, on the whole, one that moves us to hope, especially if we consider the starting-point. We need no longer stifle our courage by defining the work of education as *une tempête de l'esprit*; nor need we confuse ourselves by a vague phrase such as the "return to Nature." Mere altering conditions, even for the better, is not, and never will be, enough; that point certainly needs insistence to-day. Mr Fairchild was right so far about the human heart. But he, and all like enemies of the human race, were wrong, miserably, stupidly wrong, when they thought that to insult, to browbeat, to sermonise, to degrade human nature in its own eyes, was the curative plan. The opposite is, I believe, true: to ennoble, to encourage, to study, to elevate child-nature is the more excellent way—and in this more excellent way I believe that, after all deductions made, Pestalozzi and Froebel are still our best leaders. Limited here, impossible there, pedantic at times, confused at others, they are still the best, because they were not afraid: they did not bluster, they did not coerce, they did not succeed as the world counts success: they took a little child and set him in their midst, and watching, helping, encouraging, they worked to free him and to give him the joy and delight of exercising in friendly surroundings his higher

powers and instincts. Self-mutilation as a means of saving one's soul had made of education in the past *une tempête de l'esprit.* Self-realisation for the nobler end of perfect service may effect a revolution even in the nursery and infant school-room of to-day. Meantime we who have won our scant measure of freedom with so great a sum may still, as we work for our children, find it possible (as we assuredly shall find it divinely refreshing), to "dream the dream of the soul's slow disentanglement."

CHAPTER III.

PRIMARY EDUCATION IN THE NINETEENTH CENTURY,

BY

SIR JOSHUA FITCH.

IT has been deemed desirable by those who have framed the regulations of this Summer Meeting to cause a brief survey to be taken of the principal influences which have affected intellectual progress in the century now coming to a close. To me has been assigned the humble and rather prosaic task of reviewing the history of our primary education during this period. But before doing so I must ask you to bear in mind the fact so often reiterated, that our country differs from most others in Europe and in America, in the manner in which it has approached and treated the subject of popular education. Our system if so it deserves to be called is the product of growth, not of manufacture. You cannot point to any statesman or thinker who has formulated its principles and has predicted the manner in which principles should be embodied in laws and ordinances. John Bull is in this and the like matters frankly empirical. He is impatient of theories, and has a chronic distrust of doctrinaires and philosophers. Carlyle put this fact in a rather brutal form when he said that the English as a race are logically very stupid, and wise chiefly by instinct. What we have achieved in the department of public

education has been gained by a process of gradual evolution, by experiment, by opportunities, by successes and failures, by compromises and concessions, and not by any predetermined plan or clear forecast of the future. There is a curious analogy between the life and growth of institutions and the history of a single human life. We start with more or less of a career before us corresponding to the predilections of our parents or ourselves. But new and unexpected conditions arise. What appeared to be openings full of promise prove to be closed; possibilities of honour and usefulness present themselves, which were never included in our programme; the 'divinity that shapes our ends' reveals itself in the form of environment, of new wants, of new possibilities, of new resources, and of constant occasions for adapting ourselves to new circumstances and needs. If we are wise we shall not rebel against these conditions; we would rather say with Wordsworth, when he looked back on the illusions of his youth and found they had vanished,

> "Not for this
> Faint I nor mourn nor murmur: other gifts
> Have followed, for such loss I would believe
> Abundant recompense."

And so if by slow degrees institutions though they seem to be clumsy and unsymmetrical in form, prove to be convenient, and to suit well the peculiar genius, the traditions, the wants, and sentiments, and the religious convictions of the nation, we may be well content to use them, and to reconcile ourselves to their uncertain origin and to some at least of their inevitable defects and limitations.

Let us see how far these general statements are true in regard to primary education in England. I have enumerated roughly three or four of the main sources of the influence which has shaped our course, (1) Endowments, (2) Philanthropic and voluntary effort, (3) Legislation, and (4) Municipal and corporate action, and (5) Private adventure and enterprise.

It can hardly be said that primary instruction in England owes much to the first of these sources of assistance. Universities and secondary education indeed owe much to pious founders. In the 16th and 17th centuries many educational foundations were established, as a result partly of the general revival of learning and partly of the Reformation. They were generally intended to place a liberal education, founded especially on the ancient classical languages, within the reach of all who had the ability and the time to pursue them. The ancient Grammar Schools did not indeed fulfil all the hopes of their founders, but many of our most illustrious statesmen and writers owed all their early education to these schools. Although the present generation has found it necessary to alter some details in the original statutes, the spirit of Erasmus, of Colet, and of Lyly has survived in them to this day, and in the new shape which modern legislation has provided, the Grammar Schools of the 16th and 17th century are among the most potent factors in modern education. But the founders of Grammar Schools never contemplated what we call elementary education, nor did they provide any instruction specially designed to meet the needs of the poor. That task was left to an entirely new class of testators and benefactors, who after the Restoration period, and especially in the time of Queen Anne, established all over England what are generally known as Charity Schools. The religious struggles which attended the passing of the Act of Uniformity, Charles II., and the Toleration Act of William III. stimulated the conservative churchmen of that day to devise some plans by which the labouring classes might become attached to the Established Church; and the creation of schools exclusively designed for the poor was regarded as one of the effective instruments for the attainment of that object. But the educational aims of these schools were very low. Reading and writing and needlework, with a little arithmetic, and diligent enforcement of the Catechism, and of church attendance satisfied the intellectual ideal

of the ecclesiastical and other personages who maintained these schools. The children were clothed in a conspicuous charity dress, they were picturesquely arranged in the gallery of the church, and many persons now living can remember the annual festival of the Charity School children of London in St Paul's Cathedral, and the gratification evinced by the trustees and supporters of these schools, as they saw the objects of their bounty arrayed in bright colours and listening to a sermon from some dignitary of the Church, who reminded them of their low estate, and accentuated that fact of the 'duty to my neighbour,' which teaches to 'order myself lowly and reverently to all my betters.' The conception of popular education which dominated these schools does not appear to you or to me a very high one; in fact they were rather designed to restrict than to encourage intellectual progress and activity. Their moral ideal is to be seen in the well-known couplet:

> God bless the Squire and his relations,
> And make us keep our proper stations.

But after all their aim was not an ungenerous aim. Relatively to the state of opinion in the nation, it was an honest aim, it represented a real desire to be of service to the poor in the only way then known. The Schools Inquiry Commissioners of 1865 found nearly 2000 such schools; some of these have become ordinary public elementary schools receiving a grant from Government, in nearly all of them the distinctive charity dress has been given up, and all of them have lost under the influences of modern legislation the sectarian narrowness which once distinguished them. Apprentice funds and other like privileges have been converted into scholarships. At any rate, endowments for primary schools have ceased to be made, as the need for them has practically disappeared, since gratuitous elementary education is now provided by the State. Such gifts as are accessible for the children of the poor are now very properly applied rather to the purpose of enabling them to

proceed to places of advanced education than to the provision or equipment of the elementary schools themselves.

The only provision other than that furnished by the Charity Schools which existed at the beginning of the present century was that furnished by private enterprise. A few so-called schools were held in private houses, and chiefly by incompetent and often disreputable people, who earned a scanty living from the weekly pence of the parents.

Dame schools, such as that of Shenstone's *Village Schoolmistress*, and boys' schools, such as were described in Crabbe's *Borough* and in Joseph Lancaster's early tracts, furnished almost the only means of instruction accessible to the children of the poor, and although in 1805 Lancaster made the first experiments which resulted in the formation of the British and Foreign School Society in 1809, and Andrew Bell's monitorial system was adopted by the Church of England and became the basis of the National Society in 1811, private enterprise of a somewhat ignoble character continued to flourish till a much later date. In 1869, with a view to obtain the *data* for the Education Bill of the following year, I was, at the instance of Mr Forster, appointed one of two Special Commissioners, Mr D. R. Fearon being the other, to report to Parliament on the educational provision then existing in four great towns, Manchester, Liverpool, Birmingham, and Leeds. Our report showed that besides 'National' and 'British' schools, which by that time were receiving Government aid and inspection, there were still in the poorer parts of those great towns some hundreds of children whose only instruction was gained in private houses, or in the rooms attached to chapels, but rented by the masters and mistresses themselves. Here, for example, is my own description, extracted from the Parliamentary paper, of some personal experiences in Leeds and Birmingham:—

I. In a small low room (12 ft. 6 in. by 12 ft.) in a back court I found 44 boys of ages varying from 4 to 14. In the middle sat the master, a kindly man, but a helpless cripple, whose lower limbs appeared to be

paralysed, and who was unable to stand up. At first it was difficult to recognise him in the crowd. The boys formed a dense mass round him, swaying irregularly backwards and forwards, while he was protesting feebly against the noise, his head rising in the midst like a ship in a storm. In a corner the wife was sitting, engaged in "minding" the six or eight youngest children. The room is insufferably close and dark: there are not forms enough for all to sit on, and only three old desks. It is difficult to move in the room, and still more difficult to arrange the older boys for a short examination.

Since the few who are provided with reading books have books of all sorts, most of them with half the leaves out, it is a work of time to organise a reading lesson. With the help of two or three copies of the New Testament I made a beginning and heard the reading of the twelve older scholars. It was very bad, inarticulate and unmeaning. No boy could explain the simplest words, and the master said he was not accustomed to ask questions. The writing lessons consist mainly of copying a whole slateful at a time from a book, then rubbing it out and beginning again. Although spelling in columns from a book is a conspicuous lesson, on which much labour is spent, the spelling of a simple sentence which I dictated was full of gross mistakes.

There are only two boys who can do an addition sum, although the average age was nearly 11. All the sums, I was informed, were copied out of books, or from examples "set" in writing by the master; the boys had never been used to hear a sum given out in words. The ignorance, dirt, and confusion which characterise the school are deplorable. It has, however, one *specialité*: the boys spend much of their time in ornamental printing of texts, mottoes, and announcements suited to a shop window. Each boy has a little box of cheap paints, and colours his performances liberally. A great number of these works of art were exhibited to me with considerable pride by master and pupils, and I was requested to accept some specimens. The parents are much pleased with this feature of the school work, the boys enjoy it, and, as the master explained to me, it has the great advantage of keeping them quiet. "For when the 'spellings' are said, and the sums are done, there is," he observed, "a good deal of leisure time in a school, and he knows no nicer way of occupying it than this." He has kept school here for 20 years, and has always had it full. Parents in the neighbourhood probably feel sympathy for his affliction, and are content to pay him fees a little higher than those charged in a national school. "Besides," as he remarks, "they like a private school better than one of those large two-penny schools, where boys are only taught and knocked about by other boys."

II. In a school in Leeds containing 40 children, of whom the majority

were under 7, but several had reached 10 years of age, I found an elderly woman sitting in the midst of a group of girls who were engaged in knitting while one of the elder girls was minding the little ones and trying to make them sit still. It is very hard to keep the boys quiet the governess explains to me. There is nothing for them to do but write, and when they have done slateful after slateful they get tired; the only other lessons they do consist of reading and a little spelling; no one learns to cipher. The mistress complains much of the capricious way in which children are removed. It is almost better, she thinks, not to teach them much, for the more you teach them the more quickly they are removed; as soon as they learn a little parents think they can read, and take them off to work. Of the neighbouring National schools she speaks with considerable irritation, not unmixed with contempt. She has known some children to be nine months in such a school and never to have learned a single task. She knows of no form of instruction except saying lessons; her room is very dirty and ill-ventilated, and her own qualifications are of the humblest kind.

III. In the front room of a small dwelling-house, half filled with dirty household furniture, there were 35 boys, all of whom were entirely unemployed, except eight who were writing in copy-books. The master had retired (11 a.m.) to a neighbouring house for luncheon. He was a cloth-dresser by trade, and "took to schooling because work was slack." He finds the employment very hard, as he does not know what to do to keep the boys occupied so many hours. He regrets that he is not "a bit of a singer," for if he were, he would "learn them a few ditties, and the time would pass away quicker." There are five "sixpenny boys" at the top of the school, who are writing fairly, but not well, and who enter sums in a ciphering-book—but without understanding them. The "fourpennies" are very backward, no one of them has yet mastered simple notation. Their only employments are occasional reading, the learning by heart of "spellings" from a book, and a little scribble on broken slates. During the larger part of every day they are expected simply to sit still. Notwithstanding the prominence given to spelling lessons, all the elder boys failed to write an easy sentence without gross mistakes. The master does not profess to be qualified for his work, or to care about it, and would willingly find other employment if he could.

IV. A more important school, known in the neighbourhood of Birmingham as an academy, is held in a large upper room, which at one time formed part of a factory, and at another was used as a dancing saloon. It is now rented by a schoolmaster of 30 years' standing, who has 50 boys in it, but whose numbers have sometimes reached 90 or 100. He says that the school has been subject to many vicissitudes; that since he has been in the

profession more than 1000 scholars have passed through his hands, and that accident and the state of trade cause the numbers to be exceptionally low just now. He has no assistance; the room though low and somewhat gloomy is well provided with long desks, and not ill supplied with school requisites. The boys are seated and are nearly all engaged in the preparation of coloured texts and shop bills, not, as I am specially informed, with any view to exhibition at the approaching Christmas, but as part of the regular work of the school. I examined the twelve elder scholars; their reading was rather indistinct and slovenly; they were not accustomed, as I found, to be checked so long as the words were pronounced; and no heed was given to expression, or to any investigation as to the purport of the reading lessons. My questions on the meanings of some simple words were met by blank silence and astonishment on the part of the boys: and by the master's explanation to the effect that he was not accustomed to put questions of that kind. The writing was the best feature of the school work, many of the copy-books being neat and otherwise creditable. Before giving a sum in arithmetic I asked, as usual, how far the lads professed to go? The answers varied: discount, square and cube root, decimals, fellowship, etc. were mentioned, and all professed to have gone beyond proportion and fractions. Yet the question, "How many articles costing 3*s.* 4½*d.* each can I buy for £50?" which I desired them to write down and think over before they worked it, baffled them completely. Not one boy could work it out, and the master urged, in explanation of their failure, that he did not think there was such a sum in the book.

There were in the four towns on which Mr Fearon and I reported in 1869 many thousand children of persons of the artizan class taught or 'minded' in schools of this type.

It is very characteristic of England that the awakening of the national conscience to any sense of responsibility in relation to the education of the people did not begin until a later period than in most other civilised countries, and that when it did begin it was a slow process. Scotland had made its first provision at the instance of John Knox. In several of the German states, in Würtemburg, Saxony, and Prussia, public provision was made for schools in the middle of the 18th century. In France, Turgot and Talleyrand had formulated plans for a national system of education, and, under the *régime* of the first Napoleon, legislative effect was given to a comprehensive plan with the same object. The founders of the New England States had from

the first set apart certain lands to furnish a revenue for the common schools; and in Switzerland, the home of Fellenberg and Pestalozzi, education has, as we all know, been a matter of national concern ever since the foundation of the Republic. But in England it was not till 1816 that the energy of Brougham induced the House of Commons to appoint a Select Committee to enquire into the educational condition of the metropolis; nor was it till nearly 20 years after that any practical step was taken to carry the recommendations of that Committee into practical effect. In 1832 the first grant of £20,000 was made by Parliament for the building of schoolrooms, and this sum was distributed through the agency of the British and Foreign School Society and the National Society. In 1835, Brougham brought before the House of Lords his resolution affirming that it was the duty of Parliament to encourage the establishment of schools, and also of proper seminaries for the training of teachers. In 1838—the first of the Queen's reign—another Parliamentary Committee disclosed a lamentable lack of educational provision, and urged the necessity for legislative action. In 1839 a Committee of Privy Council was formed, at the instance of Lord Lansdowne and Lord John Russell, and charged with the task of administering any sums which Parliament might from time to time assign to educational purposes. The first Secretary of this Committee was Dr J. Philips-Kay, afterwards better known as Sir James Kay-Shuttleworth. He had visited Switzerland, Holland and Prussia, had familiarized himself with the working of the State system in those countries, and he returned home profoundly impressed with the seriousness of our own educational deficiencies, and full of zeal for the success and usefulness which the new Department seemed to him to promise his own countrymen. He was a man of large and statesmanlike views, and fine and generous enthusiasm; and he had before him a vision of a great system by which the State, with the cooperation of good men of all parties, might place popular education on a basis not inferior

to that attained by any continental country, and might express and give effect to the highest national ideals. But he underrated the forces of the opposition which had to be encountered. In particular, his continental experience had profoundly impressed him with the indispensable importance of training for the teacher's profession; and he desired to make such training a great State function. So he urged on the Government the duty of establishing Normal Colleges. Pending the decision of Parliament on this point, he and his friend Mr Carleton Tufnell, at their own private cost, set on foot such an establishment at Battersea. But the religious bodies took the alarm. Bishops and Nonconformists alike were unwilling that the training of the public teacher should pass out of the hands of voluntary societies into those of the State. Battersea College was acquired by the National Society; diocesan institutions, 11 for men and 14 for women, were hastily brought into existence; the British and Foreign School Society increased its own training accommodation at the Borough Road, and afterwards added at Darlington and Stockwell new colleges on its own distinctive principles; the Roman Catholics and the Wesleyans soon followed, and hence it has happened that the whole business of preparing teachers for their professional work is to this hour in the hands of voluntary bodies, and that no single training college in England is under either State or municipal government. Shuttleworth was much disappointed, but he could not part with the hope that the new education bureau could by its own action do much to control and ennoble popular education, and to help teachers to improve their professional qualifications. Accordingly, the Committee of Council hired Exeter Hall and other public buildings, and instituted courses of pedagogic lectures: Mr Hullah gave a series of demonstrations of his method of teaching singing, Mr Butler Williams held classes for the teaching of drawing on a new and improved system, and courses of lectures were freely opened to teachers on the Pestalozzian method of instruction in Arithmetic

and other school subjects. Teachers flocked to these lectures in considerable numbers. Text-books on various school subjects were published with the authority of the Committee of Council. But this and the like experiments were viewed with great disfavour by many, and especially by the founders of the new sectarian Colleges, who regarded it as an encroachment by a Government bureau on the domain of the Churches. What remained to the new department of education was the examination of candidates for the teachers' office and the award of certificates. The first of these examinations was held in 1848, two years after the famous Minutes of Council, and it is very significant of the view which the energetic Secretary took of the functions of his Department, and the spirit in which he undertook those functions, that in his official circular to the Inspectors who were entrusted with the supervision of the first examination there occurred these words:

"For the first time from 800 to 1000 Schoolmasters will be assembled, by the invitation of the Government of this country as Candidates for the formal recognition of their capacity to instruct the humbler classes of Her Majesty's subjects, and as a consequence of such recognition to receive immediately from the State an annual stipend proportioned to their merits and exertions. Such a fact is in itself very significant of the continually increasing interest which the Civil power takes in the condition of the working classes, whose moral and religious state and whose intelligence are acknowledged to be objects of vital importance to the common weal.

It is important that the assembled candidates should be impressed with a conviction of the anxiety of Government by means of a higher description of moral and religious education to improve the condition of the poor, and of their determination, as an indispensable means to this end, to elevate the position of the elementary teacher, by qualifying him to occupy a higher station and by rewarding his more efficient services by superior emoluments.

They should be reminded that the present low standard of salaries of schoolmasters and their equivocal if not mean position in society are the consequences of the humble estimate of attainments and skill which has been adopted in respect to them, and that it is impossible to raise them to a position of dignity or comfort unless the disposition of the Government towards them be seconded by their own efforts to qualify themselves to obtain these rewards.

They ought to receive from you the impression that they are called upon to cooperate with yourself and with the Committee of Council on Education, for the attainment of great national objects by means strictly consistent with the interests of every industrious, intelligent, and well-intentioned teacher."

The policy here foreshadowed in the early days of the Education Department was thus to stimulate the best ambition of teachers and to invite their cooperation with the State in achieving a great national object. Grants were made direct to the schoolmasters and mistresses, and graduated in proportion to their standing in the examination, and some direct payments were made to managers under the name of 'capitation grants' calculated on the number of scholars who had attended school a certain number of times. The grants rose rapidly: in 1839 the sum voted was £30,000, in 1846 to £100,000, in 1853 it had risen to £260,000, and in 1856 to £451,213. In 1858 to £663,435, and in 1859 to £836,920. Statesmen and churchmen alike became alarmed at the rapid growth of the national expenditure, and a Commission of which the Duke of Newcastle was chairman was instructed in 1858 to report on the working of the system. Their report was somewhat disheartening; they declared that far too small a proportion of the children of school age were to be found in the schools, that the attendance of the scholars was irregular, that as to the instruction, although the more promising scholars received a good deal of attention, the rank and file of undistinguished scholars were often neglected. And they recommended a very drastic remedy, that instead of paying the teachers directly, in proportion to their own attainments, and the general equipment of the school, the children should be individually examined; and that the grant paid to the managers—no longer to the teachers—should be assessed strictly in accordance with the number of scholars who could pass a simple examination in Reading, Writing, and Arithmetic. This was the method of payment by results to which Mr Lowe, who was Vice-President

of the Council, gave effect in the crudest and most pitiless form in his celebrated Revised Code of 1861.

It need hardly be said that this step was a bitter disappointment to Sir James Shuttleworth, who had now retired with a well-earned baronetcy and in rather broken health. He saw the abandonment of some of his own cherished ideals. His successors were no longer to take the initiative in educational reform. They were simply to be the dispensers of a large sum of public money in aid of local efforts, and to see that the nation gained a good shillingsworth for every shilling that it expended. The attitude of the Department towards school managers was to be summed up in the formula, "We do not prescribe what you should do, nor ask you to do it, but if you are willing to fulfil certain conditions we will pay you for your work." And the attitude of the Department towards Parliament and the taxpayer was summed up in Mr Lowe's famous formula, "We do not assert that the system will be economical, or that it will be efficient. But if it is not economical it will be very efficient, and if it is not efficient it will be very economical." Thus it came to pass that during several years the Education Department having renounced its earlier ambitions came to be regarded by the public merely as a grant-distributing office, and the school as a grant-earning machine. This result was defended on the plausible ground that as the State neither appointed the teachers nor paid them and could not dismiss them, the only means at its disposal for influencing popular education was the making of money grants, the payment for certain subjects and measurable results, and the imposition of a money fine if those results were not obtained. To the scientific economist this appeared to be a very business-like arrangement, but from the point of view of educational science it proved unsatisfactory. For it sets up a very inadequate standard of what the "results" of school training ought to be. It measures those results in a hard and mechanical way. It takes no account of general intelligence, of the order and spirit

in which work is done, of the methods adopted, and indeed of the ἦθος of a school and the moral influence it exerted. It tempted even the best teachers to the adoption of crude methods designed to secure the maximum number of 'passes' rather than to secure the highest results of school education. Nevertheless, it undoubtedly forced upon teachers the necessity of attending more closely to the 'rank and file' of the scholars, and it produced at least one result especially satisfactory to a Chancellor of the Exchequer; for the Government grant shrank in 1865 to £636,806 as compared with £836,920 in 1859.

All later experience has led by degrees to the modification of the 'payment by results' theory as originally embodied in Mr Lowe's Code. His successors have one by one sought to encourage the teaching of other subjects than Reading, Writing, and Arithmetic, and have made part of the grant contingent on attendance as well as on examination. Mr Forster in 1869 obtained facts which showed how lamentably insufficient was the provision which up to that date had been made by voluntary effort to meet the educational needs of the people. My own report in that year showed that in Leeds with a population of 253,110, there were in average attendance in schools under inspection 12,422, in schools not under inspection 7,070, in other schools, reformatory, poor law, &c., 3,040, total 22,932; or less than ten per cent. of the population.

In the whole of the inspected schools of Leeds, only 274 scholars were presented in Standard VI, that being the class appropriate to scholars of 12 years of age. Contrast with these figures the returns just issued by the Leeds School Board for the year 1899. The population was 409,472, average attendance in inspected schools 67,375; and there is a good supply of Higher Grade and Technical Schools.

What Mr Forster's great measure did for the whole country cannot be measured merely by statistics. But it may be worth while to contrast the figures for the Metropolis alone in the year 1870 with those of the present day. With a population

of 3,258,000, requiring, according to the ordinary calculation 543,000 select places, there were in the former year in the various National, British, and other voluntary schools, places for 275,136. At the present moment, with a population of nearly 5,000,000, there are in London 226,381 on the rolls of voluntary schools aided and inspected, or rather fewer than in 1871; while in the course of thirty years about 450 new schools, each consisting of three departments,—boys, girls, and infants—have been erected by the London School Board, and the number of scholars on the rolls of these schools is 752,259, or three-quarters of a million. Thus more than three-fourths of the children now attending Elementary Schools in London are provided for by the School Board, and the proportion increases yearly.

I said that the tendency of the Codes and Regulations of the Education Department had been steadily to mitigate what might be deemed the hard and mechanical operation of the system of 'paying by results.' Mr Forster sought then in introducing the Education Act to make the Code more elastic and to encourage the teaching of other than the three elementary subjects. Grants for discipline and organization were afterwards added; and in 1881 Mr Mundella recognised for the first time the system of training and of manual exercise which had been devised by Fröbel, and which has since done so much to brighten the school lives of the infant scholars and to increase their intelligence. He also sought by a graduated payment under the name of the "Merit Grant" to place it in the power of the Inspector to recommend a special award in respect of general intelligence, order, skilful method, beauty and perfectness of equipment, or any form of excellence which could not be adequately measured by the results of individual examination as tabulated in a schedule of "passes." Another Royal Commission, presided over by Lord Cross in 1887, discussed with much fulness and ability the conditions under which the grants ought to be assessed, and the bearing of the

mode of assessment on the efficiency of the schools. They finally concluded that:

"The distribution of the Parliamentary grant cannot be wholly freed from its present dependence on the results of examination without the risk of incurring graver evils than it is sought to cure. Nor can we believe that Parliament will continue to make so large an annual grant as that which now appears in the Education estimates without in some way satisfying itself that the quality of the education given justifies the expenditure. Nevertheless we are unanimously of opinion that the present system of 'payment by results' is carried too far and is too rigidly applied, and that it ought to be modified and relaxed in the interests equally of the scholars, of the teachers, and of education itself."

Accordingly the Report proceeded to recommend some substantial modifications of the system then in force, *e.g.* that there should be a fixed grant of 10*s.* per scholar, and a variable grant of about the same amount, dependent partly on the results of individual examination and partly on various conditions hitherto recognizable under the name of the 'Merit Grant,' the principle of which they sought to retain, though under a slightly altered form. Effect was subsequently given to these recommendations by changes made during the Vice-Presidency of Sir W. Hart Dyke and of Mr Acland. But later experience has, under the present *régime*, led to the complete abandonment of all attempts to graduate the grant according to the degrees of efficiency in a school. In place of a report on the individual examination of scholars there is to be one summary estimate of the school as a whole; in place of an annual examination, occasional inspection without notice; and in place of a variable grant, dependent on a report in detail on the several subjects of instruction and on specific merits or educational defects, one 'block' grant, payable to all schools alike, which are not found to be bad enough to justify the withholding of the grant altogether.

This change of policy has been received with much public approval, but it is too early to forecast all its consequences. The policy which trusts the teachers, and provides that if a

school is not up to a high level of excellence it shall nevertheless receive the maximum, or nearly the maximum grant, in order that it may make itself better, is a generous policy. The reaction against a discredited mode of awarding the public grant has been complete, and it remains to be seen whether the opposite of wrong proves to be right. Yet, after all, liberty to improve *may* imply in some cases liberty to remain unimproved. Many of the best school managers are beginning to complain that some of the safeguards for thorough and accurate teaching have disappeared, and they are looking anxiously for some other safeguards to take their place. The motive force in the grant-earning system was not a very noble one, but some motive force may still be found needful in hundreds of schools, which are neither good nor bad, but dull and apathetic, contentedly acquiescing in routine and in a low standard of aim as well as achievement. We do not want to bring about again the state of things which existed when the Duke of Newcastle's Commission made its report, and when slovenly teaching and slovenly inspection seemed to call for a sharp and summary remedy. So it may be that further modification in the Code will prove to be needed and that new precautions will be required.

The Scotch Education Department, which on more than one occasion has set an example worthy of imitation, has in its new code for this year taken two such precautions: (1) the permission to the Inspector to recommend deductions of one to five-tenths, from the Block grant, for faults of instruction, or imperfect discipline; and (2) the award of a leaving or *Merit Certificate* to scholars who at the end of their school course prove on examination to have received a satisfactory general education appropriate to their age. The former of these expedients will discriminate the degrees of efficiency in the inspected schools, will make the inspectors' reports more detailed, and therefore more helpful to managers in their efforts to improve; and the latter will set before every teacher the

goal which ought to be attained, and, by means of an effective individual examination at the seventh standard, correct any tendency to laxity which may have been observed in the ordinary work of the school. Neither of these two expedients has yet been adopted in England. The great problem which confronts all Governments in regard to education,—how to give guidance and regulation to those who need them, and liberty to those who know how to use it,—is not yet finally solved; and the nineteenth century, though it has made distinct advance and tried many fruitful experiments, leaves to its successor a system which with all its merits is still imperfect, and on which the last word has not yet been said.

One of the greatest needs of our time is that of some means of prolonging educational discipline and cultivating the desire for self-improvement beyond the age of fourteen, when the strictly primary course is finished. In Germany and Switzerland this object is largely attained by legislation, which compels the boy or girl to attend a supplementary school for two or three evenings in the week. In France and Belgium it is met partly by the *Écoles Primaires Supérieures*, which carry on the primary course to new subjects, but on the same lines, to the age of 16 or 17: and partly by various technical and industrial institutions, apprentice schools, schools of commerce, and the like. We are waking up to a sense of the need which exists for some provision of this kind, but it is curiously characteristic of the haphazard character of English legislation on this subject that we owe the chief modern resources for this supplementary instruction to unexpected accidents. In 1890 Parliament was called upon to deal with the excise duties derived from the sale of spirits, and it was proposed by the Government to devote a considerable portion of this sum to compensation to publicans for the loss of licenses. But energetic efforts were made to prevent such an appropriation. Mr A. Acland interposed, and suggested that this part of the revenue should be ear-marked and devoted to Technical Education. The moment was favour-

able, 'the blessed word' Technical, though its meaning was only very imperfectly understood, touched the imagination of the House of Commons and the country; and in this way a sum of nearly £1,000,000 per annum was definitely secured for distribution among the County Councils of England and Wales, in proportion to the several populations. The share of this sum accruing to the London County Council is upwards of £180,000 a year, and this sum has been most judiciously devoted to the encouragement of scientific instruction in schools, to apprenticeship and scholarships for promising scholars, to manual training, and in many ways to the improvement of the intelligence and skill of young artizans of both sexes. Fortunately the Act of Parliament gives a very elastic meaning to the word 'technical,' and it is becoming daily more evident that preparation for a skilled handicraft alone would prove very unsatisfactory except as a part of a wider and more general curriculum of a secondary type, in which the claims of language, literature, and the 'humanities' generally shall be duly co-ordinated with physical science and manual industry.

The other windfall which has come into the possession of the public recently is derived from the City Parochial Charities. Mr Bryce, in 1883, succeeded in drawing attention to the large sums available in the City parishes, from ancient endowments, which were once useful when the citizens of London resided in their places of business, but which had become obsolete, and were indeed mischievously wasted. The Commissioners found that large local charities for doles, for apprenticing, for pensions and Christmas gifts had ceased to be of use, partly because no worthy recipients were to be found, and partly because the value of the estates had in many cases increased out of all proportion to any conceivable local requirements. So, after devoting £155,000 to the purchase of open spaces and an equal sum for erecting Polytechnic institutions in the suburbs of London, an annual revenue of about £50,000 was secured for the maintenance of those institutions, and otherwise for placing

within reach of the young artizans of London, trade laboratories, classes and special instruction adapted to the industrial needs of the Metropolis. The London School Board, also, by means of its continuation schools, is strenuously exerting itself to afford additional means of advanced and appropriate instruction to scholars who have passed through the primary school course.

It need hardly be said here that finality has not been reached. There are grave problems yet unsolved, which will call for the exercise of all the experience and wisdom of the new Board of Education, even when aided by its Consultative Committee. There is first of all the question of the training of teachers. After all that has been said of the urgent importance of this question, it is a little humiliating to reflect that one half of the schoolmasters and mistresses who enter the profession each year have received no regular training, and have had no means of obtaining it. Last year about 4400 new recruits obtained certificates—scarcely enough to supply the yearly waste in an army of 60,000 fully qualified teachers, and of these only 2200 proceeded from Training Colleges, 1400 being from denominational institutions—Anglican, Roman Catholic, or Wesleyan—and 800 from undenominational colleges, including the day students from the normal departments of the great provincial Colleges of University rank. The rest—amounting to about one-half of the total number—are assistant teachers and others who have qualified by passing the certificate examination, but are untrained. It is evident that we need more normal or training institutions. Yet the Government does not establish them; the School Boards have no legal power to do so; and from the first the Government has relied mainly on the provision for training which has been furnished by the Churches. Nobody has better reason than I have to know how much faithful and valuable work has been done in the denominational Colleges and what devoted teachers they have succeeded in producing. But there are inevitable limitations to the usefulness of close

professional seminaries, founded mainly with a view to strengthen the religious influence of particular sections of Christians. And though there are honourable exceptions, yet as a rule the intellectual aims and the consciousness of *national* as distinguished from denominational requirements are not so high as in colleges of another type. Hence I do not think it desirable that the nation should depend mainly for augmenting our supply of trained teachers on any increase in the proportion of training colleges under ecclesiastical influence, although these colleges have undoubted value and appropriateness for certain classes of students.

In the near future it will become more necessary both in regard to Training Colleges and to Elementary Schools to revise the relations between the Government and the religious bodies, and to consider the conditions under which the Government can continue to avail itself of the cooperation of those bodies. The truth is that the State cannot make itself more denominational, but the denominations can make themselves more national. They can continue to cooperate beneficially with the Government without parting with the religious instruction, to which they naturally attach high importance: and they can do this in two ways, (1) by determining that the schools and colleges controlled by the Churches shall not be content with a lower ideal either of educational efficiency in the schools, or of professional qualification for the teachers, than that which is accepted by purely educational and non-sectarian bodies; and (2) by accepting and indeed welcoming the representatives of the public, in the management of the denominational institutions. They will be able to strengthen their position by a more cordial recognition of the great public and social aims which should dominate a national system. But they will not secure it by advancing new claims for denominational influence over the training of teachers or for denominational teaching in the public schools. There is for example no demand on the part of parents for a separation of the children

for religious instruction according to the tenets of their respective sects; that demand comes wholly from the clerical and other supporters of those sects, and if ever complied with it would dislocate the internal arrangements even of good schools, and would introduce among the children sectarian distinctions which would neither be intelligible to them, nor appropriate to their childish needs. It is not likely, however, that the English Legislature will ever consent to try this new and most serious experiment.

In fact the relation at present subsisting between the State and the religious bodies may be described as one of unstable equilibrium. Consider how the conditions have altered during the last 30 years. At the time of Mr Forster's Act it was computed that one-third of the whole cost of elementary education was contributed by the State, one-third from the fees paid by parents, and one-third from voluntary subscriptions. To-day the total annual cost of primary instruction in England and Wales is eleven millions, of which more than ten millions are derived either from the public treasury or from local taxation, hardly three-quarters of a million or one-sixteenth of the whole from voluntary contributions; the total of all such contributions including church collections and some share of local endowments being £603,241 in Church of England schools. The liberal grants from the Central Department have little by little reduced the necessity for voluntary aid. Even in 1894 before the special aid grant of 5*s.* per head to voluntary schools was added to all former grants to managers, a Parliamentary return showed that there were 1061 voluntary schools with no subscriptions whatever, 674 in which the subscriptions amounted to less than a shilling per head, 1095 with more than 1*s.* and less than 2*s.* 6*d.*, and 1967 with more than 2*s.* 6*d.* and less than 5*s.* When it is considered that since that time voluntary schools have been exempted from the payment of local rates, and have thus received an enforced contribution from the ratepayers, it is obvious that there will

be an increasing number, probably many thousands of schools, chiefly rural, managed wholly by private and self-appointed persons, who neither contribute anything to the funds nor represent contributors, and who yet are free to obtain for themselves and for the schools whatever denominational advantage the exclusive management of a school can give.

But the readjustment of the relations between the State and the religious bodies is only one part of the larger problem which awaits the statesmen of the future. How far can any effort on the part of a central authority towards the unifying and co-ordination of local agencies be effective, without discouraging individual and corporate initiative, or doing something to weaken the independence, the enterprise, the inventiveness, and the personal enthusiasm, which are among the most valuable factors, in this country at least, of a system of national education? We want legislation and a central authority it is true, but we must not expect too much from it. The gravest problems which lie before us cannot all be solved from Whitehall. There are better methods of teaching to be discovered than any which have been yet devised. We want a clearer perception of the true relation between primary and secondary instruction, and we may well dread the creation of an arbitrary line of demarcation between them. We need also in all our places of education, from the Infant School to the University, more definite views as to the relative values of those studies which have a visible bearing on commercial and professional success, and are helpful in getting a 'livelihood,' and those other studies which shall help the man or woman to live an intelligent, honourable, and interesting life. We have to devise means whereby schools shall be made instrumental in preparing our children for the duties of citizenship, and for rendering to the State unpaid and willing service. Schools can do much to cultivate patriotism, not by seeking to introduce rifle clubs and military drill into schools, still less by encouraging that boastful and rather theatrical patriotism which expresses itself in waving the Union Jack and singing Rule

Britannia; but by steadily inculcating a grateful sense of the debt we owe to our ancestors for their efforts and for the great inheritance which they have bequeathed to us, and by urging scholars to live and work so as to be worthy of that inheritance. All these objects must be attained if at all by the personal skill and enthusiasm of our teachers, and not by means of State direction or authority.

The gravest of all the tasks before us is to discover in what way schools may do more for the formation of character. If the result of so much of religious teaching as takes the form of enforcing creeds and catechism has proved somewhat disappointing, are there not yet resources open to us for touching the imagination, exciting reverence, and encouraging aspiration after righteousness and the love of truth? There is also the duty of determining how the best results of school work are to be wisely tested and assessed for the information of parents and for the due satisfaction of the State? I am disposed to sympathize a little with a young candidate whom I once examined for the Indian Civil Service, and who in the course of an essay on the changes which the present century had witnessed, said, 'The public exacts every year a higher standard of education from those who seek employment in its service; in proof of which I may refer to the extraordinary difficulty of the questions set at the present examination.' Then there is the great subject of the qualifications of teachers. Do our present methods succeed not only in imparting a knowledge of the *technique* of the profession, but also in inspiring our teachers with high aims and a consciousness of the need of something far better than we have yet attained, and a determination to take an honourable share in the task of attaining it? Above all we must seek to generate among legislators and the public, and especially among parents, a truer conception of what a good school can be, and can do. We yet need a higher ideal of a generous and noble education directed to the development of the best intellectual faculties, and also to the

preparation of the scholar for becoming a valuable member of the body politic.

Such are some of the tasks which await the reformer and the statesman of the coming time. They will call for all the resources of the new Board of Education and its Consultative Committee, as well as of teachers, managers, and philanthropists. And if the rather halting, tentative, and imperfect experiments of the nineteenth century have enabled us to do much, we may yet hope that the twentieth century, with the record of the mistakes and failures of our predecessors before us, will do still more to spread the love of learning and culture, to beautify the homes and industries of the workers, and to ennoble the whole of our national life.

CHAPTER IV.

SECONDARY EDUCATION LEGISLATION,

WITH SPECIAL REFERENCE TO PROBLEMS AWAITING SOLUTION.

BY

DR R. P. SCOTT.

IN treating of Secondary Education with special reference to those of its problems which now await solution, I do not propose to dwell on the most attractive features of the system —if system it may be called—which obtains in England. Of set purpose I say nothing of the dignity and high aims of the great Public Schools, of the excellent services rendered by our Grammar Schools and Modern Schools, or to the originality and initiative observable in the best private schools.

I propose rather to survey briefly the gradual and hesitating steps by which Secondary Education has at length won its way to the position of a great public question in England.

Amongst the problems which from an educational point of view press for an early solution are the following:—a State survey of existing schools; inspection; examination; curricula; registration and tenure of teachers; salaries and finance generally; the mutual relations of Governing Bodies, Local Education Authorities, and the Central Authority. All these are but

different aspects of one great problem—to secure in the interests of the nation the highest possible efficiency of all its schools. And, after all, this efficiency is nothing more than a means to a still greater end, the training up of good men and women who shall be capable of answering to all the varied calls made upon the citizens of this great Empire.

Even before the early years of this century there has been a vague feeling that the public is in some measure responsible for education, and that grants of public money might reasonably be made for its encouragement. After an inquiry extending from 1818 to 1837, educational charities were effectively distinguished from other charities: a generation later, the endowed grammar schools of the country were inquired into, and in large measure were more closely adapted to existing requirements; but secondary education, as distinct from secondary schools, and from technical instruction, received no official recognition or support, until in 1889—1890, under the Technical Instruction and Local Taxation (Customs and Excise) Acts, local authorities began to extend effectively over the whole area of England the benefits of a certain type of secondary education. Full recognition, however, of secondary education as a matter of national concern has been reserved for the closing decade of the century in the Bryce Commission and the Board of Education Act, 1899.

These are the most prominent features of the prolonged movement which has resulted in a partial organisation of secondary schools; yet hardly a year of the Queen's reign has passed which has not been marked by some public inquiry or Commission, or by some private or Government Bill, and though the statute which became operative in the very last year of the century may appear to be but a modest instalment in payment of a great debt, yet it cannot be doubted that the early years of the coming century will witness in England a great development and a wide extension of secondary education.

It will perhaps be enough to mention in order of date the

official inquiries, the Acts of Parliament, and the administrative changes during the century which have been of determinative importance to secondary education.

The Committees or Royal Commissions are:

1818—37. Brougham's Committee on Endowments.
1849—53. Chichester Commission.
1850—52. Oxford and Cambridge University Commissions.
1861—4. Public Schools Commission, under Lord Clarendon.
1864—7. Schools Inquiry Commission, under Lord Taunton.
1881—4. Technical Instruction Commission, under Sir B. Samuelson.
1894—5. Secondary Education Commission, under Mr J. Bryce.

The Statutes are:

1853. Charitable Trusts Act.
1868. Public Schools Act.
1869 to 1874. Endowed Schools Act, and amending Acts.
1888. Local Government Act. [Important as mapping out the whole country into local administrative areas].
1889 and 1891. Technical Instruction Act and amending Act.
1889. Welsh Intermediate Education Act.
1890. Local Taxation (Customs and Excise) Act. [Important as providing all Counties and County Boroughs with funds for technical instruction].
1899. Board of Education Act.

With regard to Public Departments, the following steps mark the chief administrative departures:—

1839. Committee of Council on Education established.
1852. Department of Science and Art established.
1853. Charity Commission established.

1856. Vice-Presidency of Committee of Council established, and the Department of Science and Art coordinated with the Education Department.

1900. Board of Education, including Consultative Committee, established.

Twice also has the Government of the day recognised that the organisation of education is a matter of national importance, viz. in 1869, when Mr W. E. Forster was admitted to the Cabinet with the purpose of giving the full weight of Governmental influence to his Education Bill, and again in 1892, when Mr Arthur Acland, though occupying no higher post than the Vice-Presidency of the Committee of Council on Education, was nevertheless admitted to the rank of a Cabinet Minister.

Thus the lack of legislation for secondary education in general has been due not to want of information on the subject, but to the absence of public interest in the matter and to a practical disbelief in national responsibility with regard to education as a whole.

Let us consider in order the several Inquiries into the subject, and their respective outcomes as regards legislation:

1. THE BROUGHAM COMMISSION. This was the first Commission appointed with powers of inquiry into Secondary Schools, though its range extended over charitable endowments in general. A Select Committee of the House of Commons, having considered their Report, recommended in 1835 the establishment of a permanent Commission to superintend the Administration of Charities.

2. THE CHICHESTER COMMISSION. Nothing effective was, however, done until this second Commission had reported that the abuses complained of by the former Commission had not yet been sufficiently remedied. As a consequence the Charity Commission was constituted by Act of Parliament in 1853, and empowered to conduct inquiries into Charities and to make

schemes for their administration. But it may be remarked, firstly, that such schemes were incomplete without confirmation by Parliament; and, secondly, that in the great majority of cases they dealt with non-educational charities.

3. OXFORD AND CAMBRIDGE UNIVERSITY COMMISSIONS. In 1850, two Commissions were appointed to inquire into the state, discipline, studies and revenues of Oxford and Cambridge respectively. Both Commissions had a difficult task to perform owing to the open hostility of the resident members of the Universities. The Oxford Commission was exceedingly frank in its criticism of the then existing state of things. The Cambridge Commission was more guarded in its expression of opinion. But the case for reform was so strong that in 1854 and in 1856 Acts of Parliament were passed for Oxford and Cambridge, respectively embodying some of the chief recommendations made. In the reforms which followed both Universities became accessible from a wider variety of schools than had hitherto been the case.

4. THE CLARENDON COMMISSION. In 1861, a fresh Commission was appointed to inquire into nine great Public Schools—the boarding schools of Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury, together with the day schools of St Paul's and Merchant Taylors'.

The result of this inquiry was practically to reveal the need of a far wider inquiry, namely, as to the education given in endowed grammar schools generally. The legislative outcome of this Commission is seen in the Public Schools Act, 1868, a measure of exceptional legislation in favour of the nine schools above named.

5. THE TAUNTON COMMISSION. The Terms of Reference of this Commission were contained in the following words:

> "To report what measures, if any, are required for the improvement of secondary education, having special regard to all endowments applicable, or which rightly can be made applicable thereto."

Among the twelve Commissioners on this occasion were the first Lord Lyttelton, Dr F. Temple, now Archbishop of Canterbury, Mr W. E. Forster, and Mr (afterwards Sir) T. Dyke Acland. This was the Commission to which Matthew Arnold reported on the systems of secondary education existing in France, Germany, Switzerland, and Italy, and which he sought to impress with his cry of "Organise your Secondary and Higher Instruction." One of the less obvious effects of the Report was to reveal to Parliament the striking deficiency of public provision for the secondary education of girls in England, and the capability of girls to benefit by such a provision, if made.

The Report of this Commission, which appeared in 1867, was of a most able and thorough character, and had its Recommendations been adopted, much of the subsequent waste and confusion might have been avoided. No fewer than 572 Secondary Schools were reported upon; amongst these, the efficient schools were found to be few in proportion to the needs of the community; the best schools, moreover, were boarding schools, designed chiefly for the wealthier classes. There were 100 towns with at least 5000 inhabitants which had no endowed grammar school at all; in fact the supply was utterly inadequate, and that which existed was in many cases inefficient. Of this inefficiency two examples may suffice.

In one school the Commissioners found that the Head Master and the Second Master enjoyed the freehold of their offices and had not exchanged a word for thirteen years. In another case the school was found to consist of a single pupil, and the large school-room had become a billiard-room for the master, who, when asked why he did not shew greater energy in getting pupils, replied that the house was a good one, the income was sufficient, and he was not ambitious.

"At Sedbergh there were 13 pupils, the schoolrooms were in a shameful state, and the scholars, though showing signs of having had teaching, were in a thoroughly bad state of discipline, and apparently only staying

on to qualify for the school exhibitions. Thame had two masters, receiving £300 between them, one of whom had a good house also. Mr Fearon found one boy in the school. A private school close by had 80 boarders and 40 day scholars, paying higher than the grammar school fees....Reading had three scholars, and there was no hope of the school reviving under the then master....At Whitgift's Hospital, Croydon, the late master (who died in 1863), Mr Fearon was informed, found no pupils attending the school when he came, and never had any at all during the 30 odd years that he was master....At Netherbury the master has other business, and at one time carried on continuously with the school the business of a flour and spinning mill. Mr Stanton examined the upper half of the school: "they were profoundly ignorant on all subjects." [Vol. I. pp. 225, 6.]

"The faults that may be charged in the buildings," reports Mr Bryce, speaking of the Lancashire Schools, "are of various kinds. I will briefly touch on some of the most conspicuous:

"1. They are, as a rule, ugly without and dingy within; ugly and dingy to a degree which not even a photograph could faithfully represent....The interior is even more repulsive; the roof is low, and the small windows admit a feeble light. The walls are mostly whitewashed, or covered with a wash which once was white, but is now a grimy brown.

The desks and benches are old, clumsy, inconvenient. There is everywhere an air of discomfort and neglect.

2. It is seldom that they have any proper means of maintaining an equable temperature. The fireplace is usually at one end—the upper end where the teacher's desk is placed—of a longish room; and the master is fried while the boys are frozen. The floor is more frequently of stone than of wood—I have even seen it of mud, interspersed with puddles—and thus the maximum of noise and the minimum of heat is secured.

3. The room is generally dirty and untidy. There is often no porch where the children may clean their feet and hang up their caps or coats.

4. The faults which meet the eye, however, are very far from being the worst to be encountered in these schools; it is another sense which really suffers, and suffers more than can well be described...the ceilings are generally low; the windows small and few. Many have windows which do not open; in others they are not opened from fear of the violent thorough draughts which would ensue. The result must be felt to be understood." [Vol. I. pp. 279, 80.]

The chief recommendations of the Taunton Commission were:—

1. That a Central Authority should be appointed—a strengthened Charity Commission.

2. That Provincial Education Boards for the local grouping of Secondary Schools should be established.

A difficulty was felt in determining the areas of local administration and the Registrar-General's districts were suggested: but this was only in default of an official unit-area recognised for general administrative (including rating) purposes.

The Commissioners were fully alive to the immense gain which will accrue to Secondary Education when it can enlist on its side local interest and local support.

"The necessity of dealing with schools in groups," writes the Commission, "seems plainly to imply a corresponding necessity of local provincial Boards to deal with them...local opposition to many changes would be probably diminished and perhaps disappear if a considerable district, such, for instance, as a county, were handled by itself, and the endowments were administered for the benefits of that county....It is plain that a local Board has some very great advantages over a central authority. It can act from personal knowledge of the district, and consequently can consult the feelings and peculiarities of the people. It can inquire into all important endowments on the spot, and give every person interested an opportunity of being thoroughly heard. If in any substantial degree it represents the people, it carries a force with it which it is impossible to secure in any other way." [Vol. I. pp. 637, 638.]

3. That Boroughs should be empowered to rate themselves up to *2d.* in the £ for the supply and maintenance of Secondary Schools.

4. That an Examining Council should be appointed to report upon the instruction given; half of the members of this Council were to be nominated by the Universities; the benefits of examination to be open to *all*, not merely to endowed, secondary schools; and all schools to be capable of inclusion in the list of 'efficient' schools.

Further, a Commissioner was to be appointed by the Central Body to each District with powers of inspection.

Such were the four Recommendations of this Commission made so long ago as 1867: they cover in effect the whole field of what was then under consideration; at that date there were no Higher Grade Schools and no Technical Institutes to raise the thorny problem of delimitation. It was indeed a golden opportunity for legislation, but the issues involved were not understood either by those in authority or by the public at large, and the main outcome of this Commission on the passing of the Endowed Schools Acts was to place the Charity Commission in the position of a Central Authority for a large number of Secondary Schools, though Secondary Education as apart from Endowed Schools was naturally beyond the purview of such an Authority.

The projected Provincial Authorities lacking touch with all administrative and rating authorities alike remained *in nubibus*, while the work of examination, having been already taken up by the Universities of Oxford and Cambridge as well as by the College of Preceptors, was left in their hands.

Following upon this Commission came the Endowed Schools Acts (1869 to 1874) under which certain Commissioners were appointed with powers to deal with Endowed Secondary Schools. To their credit be it spoken, that within the six years of their existence they obtained parliamentary sanction for no fewer than 235 new schemes and left behind them 200 draft schemes in an advanced stage. Such unprecedented activity met with its natural reward; the Commissioners resigned office in 1874 and the Charity Commission resumed sway and conducted operations with its characteristic caution and avoidance of official friction.

The action of the Charity Commission subsequent to 1874 has no doubt been largely influenced by their interpretation of the object in the preamble of the Endowed Schools Act of 1869, viz. that of "bringing a liberal education within the reach of children of all classes." They interpreted this to mean that in general the tuition fee was to be fixed as low as possible, and

accordingly, without investigation as to the cost per pupil of efficiency in the several types of school considered, the fees were allowed to be fixed by Governing Bodies far below the minimum cost of efficiency: in determining the scales of fees permitted the Commission took no account of a possible shrinkage of endowment, or even of the inevitable rise in the cost of efficiency under the new conditions prescribed by the Commissioners themselves; in fact, while responding to the public need for a wider diffusion of liberal education, they failed to enlist public support for the work they had undertaken. And why did they fail? Because, failing to perceive that financial considerations profoundly affect the questions of school-efficiency, they omitted to collect, to collate and to report upon the facts which it was their duty to investigate. The consequence of this omission has been that no general standards of educational efficiency have been evolved, and that a large proportion of the schemes have been issued under serious misapprehensions and hence have never been fully operative. Instead of insisting that such schemes could not in many cases from the aspect of efficiency be fully operative without further financial aid, and that the public should not look to the Commission for grants for aid, the Charity Commissioners were content to perform their legal duty of launching the schemes without concerning themselves in their future fate.

Such a policy could not of course prove final. Secondary Schools in their financial distress looked around for aid from other sources.

Such aid was immediately available on conditions. Among the subjects of instruction lately admitted into Schemes was that of natural science, and the Department for Science and Art was at hand ready and willing to extend its operations by subsidising the teaching of this subject as well to pupils of school age attending Secondary Schools as to those of maturer years.

In 1852 a Department of Science and Art had been established under the Board of Trade, but when in 1856 it

was transferred to the Privy Council, like the Education Department, it was placed nominally under the Lord President of the Privy Council but virtually under the newly created officer of State, the Vice-President of the Committee of Council on Education. This arrangement, with its possibility of divided counsels at head-quarters, has now been swept away by the Board of Education Act.

The Science and Art Department received an Imperial Grant which amounted in 1899 to as much as £600,000, and which it disbursed to Governing Bodies, to teachers and to students. The conditions on which it distributed the money have undoubtedly had a considerable effect in encouraging, especially in the case of adults, the teaching of subjects in the Science and Art Directory, but, in respect of Schools, the examination tests which it imposed were not on the whole such as tended to establish right methods of teaching or intelligent learning. These tests, so far as Schools are concerned, have been, and are still being, modified in the right direction; but, beyond this, a sound, if partial, system of educational Inspection is growing up in place of examination. Under this system not only such results of teaching as may be ascertained by written papers, but also practical work and the methods of teaching employed come under the personal review of the Departmental Inspector.

Since 1890, also, both teaching and learning in science subjects in Schools have been much improved by the establishment, under the term School of Science, of special departments within Schools with a prescribed curriculum for three years (or four) in certain subjects.

This step undoubtedly marks a real advance in administration. State control is likely to be more efficient when it recognises the limitations which school conditions necessarily impose upon the mutual relations of one subject to another in school courses of assigned length. But inasmuch as the conditions imposed affect, not the School as a whole, but merely a

part of it, and affect that part only in certain subjects, these regulations of Department must be regarded as an interim arrangement calling for early modification.

The influence exercised by the Department upon Secondary Schools has grown great from small beginnings. Broadly speaking, it has caused the substitution in most of the less wealthy endowed schools of grant-earning subjects for literary and linguistic studies, and has tempted Governing Bodies of Schools to surrender their own independent judgment as to the selection of the courses of study appropriate to their Schools, and to adopt instead the only course which would procure them a money grant.

This tendency was greatly increased by the working of the Technical Instruction Act (1889) followed by the Local Taxation (Customs and Excise) Act (1890).

The first of these two Acts was passed to remedy our national deficiencies in the application of science and scientific method to our industries: it was the direct outcome of the Recommendations of the Royal Commission on Technical Instruction which sat from 1881—4. That Commission pointed out the need of good secondary schools of a modern type and declared that legislation was necessary to enable localities to found and support technical and secondary schools: they further expressed their conviction that a good secondary education is the best possible preliminary to all good technical instruction.

The second Act made available a very large annual sum of money, now £800,000 a year, for the promotion of Technical Education, and entrusted this sum to those Local Authorities —Counties and County Boroughs—which had recently been established (1888) and whose administrative powers extended over the whole area of the country.

It will be remembered that when in 1867 the Taunton Commission recommended the establishment of Local education Authorities there was not, except in boroughs, any adminis-

trative area available; and, even in 1870, when the nation became awake to the urgent need for organising Elementary Education a new area—the School Board area—had first to be devised, and secondly to be left, as a matter of local option, with the consequence that, after thirty years from the passing of the Act, only two-thirds of the country and about half the population are now under the School Board system.

The definition of "technical instruction" which occurs in the Act of 1889 can only by courtesy be regarded as a definition at all: it is both prolix and obscure, and even self-contradictory[1]. Hence, even from the first, it has virtually been disregarded, and the Science and Art Department has been entrusted with the responsibility of interpreting it by Minute. The Department disregarding logic, but keeping essentials in view, has proceeded to sanction one by one every subject taught in schools except Classics, as coming under the head of "technical instruction." Thus, Local Authorities have been empowered bit by bit to aid secondary schools, and the majority of County Councils and County Boroughs have in a greater or less degree used their powers in this direction, but the indefinite character of the statute itself and the indirect method (viz. by Minute) adopted for supplying its deficiency have seriously impaired the effectiveness of the powers conferred by confusing the minds of local administrators.

The aid thus rendered to secondary schools has taken the shape of capital and of annual grants, the former for equipment, the latter for maintenance. In the County of London, for example, for the year ending March 25, 1900, the equipment grants made under this head were £1900, and the maintenance grants £22,870 [of which £7143 was paid in scholars' fees]. Further, it is to be remarked, that the London allocation was consequent on a preliminary survey of secondary schools within the County area, and is not based upon a mechanical scale, but has been adapted to the special needs of the

[1] See note p. 170.

individual schools with a view to ensuring the efficiency of each. Thus the varying sums allotted bear witness to an effort to supplement deficiencies of income arising from small endowments or low fees.

On the whole, and with few exceptions, the conditions imposed by County Councils on grants to schools under the Acts have been reasonably framed, but it is no less true that in the distribution of these grants too little attention has hitherto been paid to the question of efficiency and its normal and ascertainable cost per pupil.

The third member of the Central Authority for Education—the former Education Department—officially touched Secondary Education in three points only.

1. The Vice-President of the Committee of Council was at once virtually head of the Education Department and of the Science and Art Department.

2. The Education Department had the last word in respect of all School Schemes framed by the Charity Commission and could, if it chose, remit them for further consideration.

3. Lastly, in the necessary authorisation and inspection which the Education Department had to provide not only in Training Colleges, but within Elementary Schools, for Pupil Teachers, many most important questions of Secondary Education were raised in connection with the general course of education to be thus established.

Thus though there were three Central Authorities with powers bearing upon Secondary Education, viz. the Charity Commission, the Science and Art Department, and the Education Department, there was no Body which regarded education as a whole, and Secondary Education as a matter of national concern. Just sufficient touch between the three Bodies was maintained to prevent official friction, but, as they were united in no common educational aim, there resulted in each Office a district administrative tradition. The Educa-

tion Department came to focus its attention on one—the elementary type of education—and rarely, if ever, considered the bearing of its actions on other types. The Science and Art Department was naturally limited to the scope implied by its name, and whilst encouraging Science and Art teaching in general, sought to establish a uniform test for all types of education. Lastly, the Charity Commission, originating as it did with a portion of the Court of Chancery, has regarded educational charities rather from the point of view of the interpretation of the trust than that of the interests of the persons for whom the trust was held.

One effect of the office tradition of the Charity Commission, which subordinates the financial to the legal aspect of the case has already been touched upon [p. 68]. Another and even more serious effect is to throw the office out of touch with the Schools whose Endowment it guards. This loss of touch with the changing requirements of education, which seems inseparable from the legal point of view as carried to its logical conclusion, is best exemplified in an extreme case by the famous judgment of Lord Eldon in the case of Leeds Grammar School. In this case the locality sought to improve the curriculum of Leeds Grammar School, then a purely classical School, by including arithmetic, writing and other subjects, but the learned Chancellor whilst admitting that from an educational point of view the proposal was not unreasonable, declined to sanction the changes on the ground that the applicants had not produced sufficient evidence to show that the estate of the Trust would thereby be benefited[1].

Again, the Science and Art Department till 1890 consistently pursued the idea of payment by *subjects*, quite regardless of those right combinations and proportions of subjects which

[1] The exact words are worth preserving: "A provision for teaching educational subjects in a separate branch of the school might be very useful to the rising generation of Leeds, but could not possibly be represented as useful to that charity" [*The Attorney General v. Whiteley*, 11. Vesey, 241].

alone can constitute education—not to speak of a liberal education. From an educational point of view it is of course useless to attempt classification by subject. Arithmetic, for instance, belongs exclusively neither to elementary, nor to secondary, nor again to technological instruction, for it enters into the curriculum of each of these types.

Lastly, the Education Department, under the influence of a somewhat narrow tradition, limited its powers as regards Secondary Education to considering how far the Charity Commission Schemes which were submitted to it bore upon the Elementary School system which it had to administer.

THE BRYCE COMMISSION. We now come to the most recent of the Commissions dealing with Secondary Education. The Bryce Commission, which sat for 17 months (March 1894—August 1895), if not the greatest of the Royal Commissions on the subject, was in several respects the most important. In the first place, it set up a new precedent as to the constitution of a Royal Commission, inasmuch as of its 17 members 3 were women. In the next place, its singular unanimity in a matter relating to so many interests as Secondary Education does, was paralleled by the cordiality with which the Recommendations were welcomed throughout the country. Doubtless some of this unanimity was directed rather to the general principles than to the details, but the broad fact of its general acceptability remains, and many of its Recommendations have found, and more will find, their way into the statute book.

The main Recommendations of this Commission were:

1. To create an Education Office under a responsible Minister of Education, with a permanent Secretary, and an advisory Educational Council to consist of 12 members, of whom one-third should be appointed by the Crown, one-third by the Universities, and one-third by co-optation.

Into the Office on the one hand were to be absorbed the Charity Commission, so far as educational endowments are

concerned, the Science and Art Department and the existing Education Department. And besides the Office the Commission advised Her Majesty to appoint a permanent Body of educational advisers, an Educational Council, whose functions were indicated as follows [Vol. I, p. 258]:—

"Most of the work to be assigned to the new Central Office would naturally be despatched by the Minister and his departmental staff in the usual way. There will be some matters however in which the counsel of persons specially conversant with education and holding an independent position, may be so helpful, and there will be some duties in their nature so distinctly judicial rather than executive, as to make it desirable to secure for the Minister the advice of persons not under his official direction. There will, moreover, be some work to be done in a Central Educational Department, so purely professional, as to belong rather to an independent body than to a Department of State. For these purposes we propose that there be created an Educational Council which may advise the Ministers in the first mentioned class of matters and in appeals, while such a professional function as the registration of teachers might be entirely committed to it. We do not advocate such a council on the ground that it will relieve a Minister of responsibility, for we conceive that the responsibility both for general policy and for the control of administrative details ought to be his and his alone; but we believe that the unwillingness which exists in some quarters to entrust to the Executive any powers at all in this branch of education would be sensibly diminished were his position at once strengthened and guarded by the addition of a number of independent advisers."

2. To establish Local Authorities of definite and uniform constitution in each County and County Borough (i.e. in Boroughs of more than 50,000 inhabitants).

These Local Authorities should supervise all local Secondary Schools and be bound to provide sufficient means of secondary education, whilst the Central Office should see that this duty is fulfilled. Non-local Schools were to be exempt from the Local Authority [Vol. I, pp. 265, 272, 5].

3. Finance. In addition to the grants already available the Local Authorities were empowered to raise a local rate not exceeding *2d.* in the £.

4. Inspection was to be separated from examination, and was to be mainly administrative, i.e. to deal with the efficient working of the School as a piece of administrative machinery rather than as a place of education, and as such inspection was to be conducted by the Local Authority, the examination of pupils was to remain in the hands of University and other examining bodies as before.

These Recommendations have suffered the fate of the Recommendations of every other Royal Commission on Education—they have not been adopted in their entirety; on the other hand they were timely, they have served to focus public opinion, and in consequence have profoundly affected the important statute with which the century closes—the Board of Education Act, which came into legislative force in April 1900.

To come into legislative force is not quite the same thing as to come into active operation; that is left for the Twentieth Century.

I have called this Act an important Act, perhaps I should rather call it an Act of great potentialities. It appoints a Minister of Education and gives him a wide scope with much elasticity and freedom of action: it frees him from the detailed control of Parliament and hands over a great task with but few definite instructions. It is true that it leaves all the questions under discussion open questions, and in consequence it has been called vague, indefinite, and a mere skeleton of an Act; but in the existing state of public opinion this was inevitable, and was on the whole the wisest thing to do.

Let us note what the Act does:

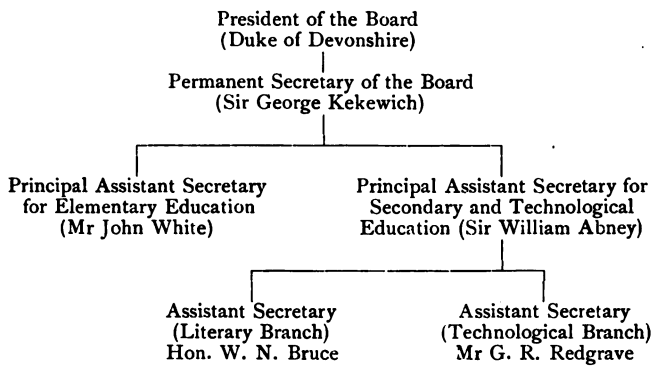
1. It creates a Board of Education bringing together—not at once, but gradually—all the three central Authorities for Education. This central consolidation is bound to produce far-reaching results.

2. The Board of Education is placed, as the Bryce Commission recommended, under a responsible Minister, who (whatever his exact title may be) will be the Minister for

Education. If the President of the Board is in the House of Lords, he is to have a Parliamentary Secretary in the House of Commons; but it is probable that, owing to the extent of the public expenditure involved, it will become customary for the Minister to sit in the Lower House.

There is to be a permanent Secretary of the Education Office with certain Principal Assistant Secretaries.

The following diagram will show the relative positions of the chief officials at present appointed under the Board of Education Act:



The Board of Education Act, sweeping away as it does the old Committee of Council on Education, abolishes the Vice-Presidency of that Committee, but by special provision of the Act Sir John Gorst still enjoys the title and powers of Vice-President which, so soon as he leaves office, will become extinct. In consequence of this special provision the need for appointing a Parliamentary Secretary has not arisen.

The appointments indicated above do not constitute, it should be remarked, by any means an ideal arrangement, or even so good an arrangement as reasonably might have been expected from the assurances given on more than one occasion in the House of Lords by the Lord President of the Council

himself, who definitely promised to appoint three [not two] Principal Assistant Secretaries of equal status. These assurances, which had the effect of disarming hostility to the Board of Education Bill, have hitherto been disregarded in these official appointments, but as the existing arrangements are not prescribed by the Act they need not be regarded as an ultimate solution of the problem, and they may, at no distant date, give place to the arrangement contemplated immediately before the Act was passed.

3. There is to be attached to the Board of Education a Consultative Committee, composed, as to at least two-thirds, of persons "qualified to represent the views of Universities and other Bodies interested in education."

In June 1900, the first appointments to membership of the Consultative Committee under the Act were made by Her Majesty in Council, and no reasonable objection can be raised against the *personnel* of this educational Council of 18 as first constituted. As in the Bryce Commission, there are upon it three women—Mrs Bryant, Miss Manley, and Mrs Sidgwick —but the method of selection is not that recommended by the Bryce Commission, which suggested a representative Body nominated in part by educational institutions. The Government has preferred to keep the nomination of members in its own hands. The Committee is empowered to frame regulations for the registration of teachers, but, apart from this function, has no power of initiative; time alone can show how this limitation will work.

4. But the Act goes far beyond mere administrative action: it arranges for the Inspection of all such Secondary Schools as shall apply to be inspected, and it draws no line (as has hitherto been done by the Charity Commissioners) between administrative and educational inspection.

Further, the Board is required to regard Inspection by the Universities as equivalent to the official Inspection. This provision will serve to keep together the great and the lesser

Public Schools, and it need not snap (as the Bryce Commission would have done) the link of fellowship between them.

This Act fully illustrates what have been the prevailing characteristics of educational legislation during the century. It postpones decision on every thorny question, and leaves the decision to the Minister of the day and his advisers. Thus:—

1. The educational functions of the Charity Commissioners are to be absorbed—when it seems fit.
2. The Consultative Committee is to have, apart from the registration of teachers, only such duties as may be assigned to it.
3. Inspection is to be optional to all Secondary Schools, public and private alike, and, even then, alternatives [i.e. by the State or by a University] are offered.

As a result, however, though organisation on a national basis is not seriously taken in hand, yet Parliament has authorised a plan of which organisation is the slow but inevitable outcome.

Thus far we have been considering accomplished facts and legislative action, but it appears advisable not to conclude without some reference to the prospect of the early establishment of Local Education Authorities in England. An outline Bill for this purpose was introduced last session by the Lord President. It is in the main, and, so far as it goes, in harmony with the Recommendations of the Bryce Commission: the Authorities which it would constitute would administer a county or a county borough area, and the rating powers seem not unreasonable; but the Bill will need strengthening in more than one direction before it can be considered as satisfactory from an educational point of view: both the constitution and the functions of the Local Authority as proposed lack to some extent that definiteness which is necessary for an effective treatment of the problem.

This defect of indefiniteness is, it is true, shared by the Board of Education Act itself, and proceeds partly from our

national besetting sin of intellectual indolence, that is, shrinking from the trouble of deciding between competing principles of organisation, and partly from a fear of arousing opposition in Parliament.

This shirking of responsibilities does not in the long run attain its end. The administrative machine is set to work without adequate instructions, and the details are gradually filled in a haphazard manner and without any reference to a preconceived principle or plan. This has happened before in every branch of the Public Service in England, and, as regards education, it remains for some great statesman to inform himself on this national question and to interest the public in a policy which he initiates. Without this, nothing fully effective will be done.

We have been advised not to expect too much of the new Office: this is good advice: it is always wise not to expect too much of any institution or of any person. Yet in a matter of national importance one ought not to be content to pitch one's expectation low. To-day educationists and the nation desire to be able to give their confidence to the new Education Office, but confidence depends upon qualities within the Office which no mere Act of Parliament can ensure.

For this confidence there are three requisites:—

1. The Office must show a knowledge of the facts with which it has to deal, and of similar facts in other countries.

Such information is being collected and disseminated by the Special Inquiries Section, of which I have no hesitation in saying that the publication of its singularly able Reports did more than any other consideration to quiet the apprehensions entertained by the Public Schools and the Universities as to the Education Department absorbing the other Departments. But the knowledge shown in these Reports needs to be digested and applied in the Education Office itself.

2. The Office must show wisdom in selecting and formulating principles and in applying them in detail. For though

a symmetrical system, like that of Prussia, may be pronounced an impossibility for us, we still need some official sanction for educational ideals, and this depends on a right and full use of the knowledge and experience of the Consultative Committee whose members are in touch alike with Schools and with Universities.

3. The Office must encourage in its Inspectors and in its other officers both tact and insight in applying principles. The transition stage is always one of hardship to individuals, and the raising of the intellectual standard is bound to cause loss and distress to many estimable persons.

Thus the choice of a fit and adequate Inspectorate will be a crucial test of the degree to which the new Office is rising to the level of its opportunities. How high this level will be depends upon the nation, upon the tide of public opinion. The Central Authority, in whose hands our national fortunes are now placed, is like a great floating dock: as the tide flows it rises unconsciously and automatically. It cannot be doubted that the tide of interest in education is rising, and has been rising, especially during the last twenty years. As I look round Cambridge and note the new College and University buildings, dating from 1880 and onwards, buildings for the most part raised by the self-denial of those responsible in College and University for the administration of a great trust, I cannot but feel that in Cambridge, as elsewhere, the somewhat selfish individualism of the last generation is giving place not so much to an impersonal collectivism as to a personal feeling of trusteeship—to a recognition that the educational advantages which we owe to the past ought to be repaid by anticipating the needs of the future in order that School and University may never fail to send forth a full supply of men qualified to serve God in Church and State.

CHAPTER V.

THE EDUCATION OF GIRLS,

AND THE

DEVELOPMENT OF GIRLS' HIGH SCHOOLS

BY

MISS F. GADESDEN.

In the paper which I have the honour to read to you this afternoon I propose to deal with the education of girls, and its development through public day schools during the last 50 years.

The questions of elementary education, technical education, home education, class education do not come within my scope. As regards the last point, most happily for us, all our High Schools receive, and rejoice to receive, girls of all classes. The whole matter of admission is settled broadly on the grounds of the ability to profit by the curriculum, and of good behaviour.

In a High School all the girls are on the same footing; all enjoy the same privileges, and all are expected to share in the common responsibilities. This is the basis of a Public School education.

To begin with the History of the movement for the better education of girls:—Miss Zimmern, in the "Renaissance of

Girls' Education"—a book which I commend to all who desire information on the subject—gives an interesting and in some respects a pathetic account of the condition of things in the first half of the century. She tells how Miss Frances Power Cobbe, in her autobiography, compares the education of her own time unfavourably with that of the end of the 18th century. "Then," Miss Cobbe writes, "there was no packing the brains of girls with facts." Besides "Grammar and geography and a very fair share of history" (Rollin and Mrs Trimmer), they learned to speak and read French with a very good accent, and to play the Harpsicord with taste." On the other hand, at her own school, in 1836, the girls were expected to learn pages of prose by heart and to practise showy and tasteless music, to copy pencil drawings, and to dance. "Not that which was good in itself or useful to the community, or even that which would be delightful to ourselves, but that which would make us admired in society was the *raison d'être* of each requirement. Everything was taught in the inverse ratio of its true importance. At the bottom of the scale were Morals and Religion, and at the top were music and dancing."

Miss Zimmern quotes also from Miss Catherine Sinclair's "Modern Accomplishments."

"Lady Howard's utmost ingenuity was exercised in devising plans of study for her daughter, each of which required to be tried under the dynasty of a different governess, so that by the time Matilda Howard attained the age of 16, she had been successively taught by eight, all of whom were instructed in the last method that had been invented for making young ladies accomplished on the newest pattern."

At the end of the 18th century there may have been no system; but if Lady Howard is at all a type of the mothers of the first half of the 19th, there was among them no lack of desire to benefit their daughters, and no hesitation in trying new methods. But the desire and experiments were rooted in ignorance and prejudice, and no real advance was made.

On the actual condition of the teaching and discipline in a school of this period, much light is thrown at first hand in the very entertaining diary of a school girl published in the current number of the "Modern Language Quarterly."

The girl was Miss Elizabeth Firth, the great friend of Mr Patrick Brontë and his wife, and the godmother of Elizabeth and Anne Brontë. The school was at Wakefield, and was one of the most noted of its day. It was kept by Miss Richmal Mangnall, the famous author of "Mangnall's Questions."

The diary covers the last two years of Miss Firth's school-life.

The "ladies,"—they are never called girls, and they all, except the very naughty ones, have the title Miss before their surnames,—are divided by age into the "great ladies" and the "little ladies." They read, or had read to them by Miss Mangnall, "The Lay of the Last Minstrel," "Rokeby," and the "Vicar of Wakefield." That was their Literature.

They had geography on the globe, with latitudes and longitudes.

The diary gives these records:

"Our Class of geography were two hours looking for the Emperor of Persia's name. My governess (presumably Miss Mangnall) told us it was Mahomet."

"My governess told our class of geography that if we did not know the rivers off we might go away. They all went but myself, though some of them knew them all."

"We had a brain-day in Geography,"—when the ladies had a *viva voce* examination the day was distinguished as a "Brain-day"—"I had seven mistakes, which was the least of any one."

The writer was rewarded for her proficiency in geography by the gift of an inkstand from Miss Mangnall, and of a silver knife from her teacher.

There is only one reference to English History:—

"I got the names of the Kings of England"—(no mention of the queens).

But she also notes that "She began of reading ancient history."

French and Drawing are dismissed very briefly.

"I began reading of Telemachus.

I began of painting my roses."

The backbone of the education at Miss Mangnall's Academy was evidently—Geography, Spelling, the Church Catechism and Verses. And the spelling of the diary is by no means faultless.

"We had dictionary excused. Several of the ladies were sent to bed for missing at spelling. Those who did not lose walked in the ring field." "Miss Fayrer gave 270 words of dictionary for poking; I had ten." Miss Firth's deportment appears to have been as good as her geography!

"Miss Ropers were sent to Coventry till they could say their Catechism. Some of the ladies had the Epistle and Gospel, twenty-eight verses, for writing on their desks."

The teaching was evidently entirely that of facts, and these, as in the instance of Mahomet, reputed by Miss Mangnall to be King of Persia, were not always distinguished for accuracy!

Of the moral tone among the "ladies" and the absence of training in honour and unselfishness and public spirit, the diary is significant.

Miss Mangnall's pupils were evidently very naughty. They were greedy, noisy, and untruthful. They stole each other's cake, they gossiped and raised evil reports about each other's characters and the characters of their nearest relations. They fought with each other.

For all these delinquencies they are punished severely. They are made to suffer the indignity of wearing a dunce's cap and have papers pinned on them, describing their faults of omission and commission. They are whipped and sent to bed with or without their tea.

But there is no indication of any attempt to distinguish between faults of manner and morals. The "ladies" are

rewarded by having good things to eat. They are punished indiscriminately for telling fibs and stealing and "ippertinance" and putting their feet on the fender.

Oct. 30th. "There was a petticoat about, and we were not allowed to wash till after supper, and threatened with twenty verses if it were not owned. It was not owned." The diary is dramatically silent as to what happened next. Perhaps, as on another occasion, they were "whiped" (spelt with one p) for obstinacy!

One may assume that Miss Firth turned out a charming woman in spite of the education which she received. Brilliant exceptions there doubtless were, but is it any wonder that the majority of the girls brought up in such a moral atmosphere should have gone back to their homes selfish, prejudiced, and helpless, with no object beyond their own pleasures, and no appreciation or understanding of their duties, and of obligations to themselves and others? This is a type of a school which provided for the rich daughters of England. For the poorer there was no provision at all.

Between 1830 and 1850 "Reform" was in the air, and amongst the questions raised was the education of girls.

By 1852 the conviction had been brought home to the supporters of the "Governesses Benevolent Institution" that if women teachers were to be self-supporting they must be competent; and to this end they must be educated. Classes must be formed—tests of knowledge and competency must be instituted. A sum of money was collected by Miss Murray, one of the Queen's Maids of Honour, and devoted to this purpose. Some of the distinguished professors of King's College offered their help; among them were Professor Maurice and Dean Trench and the Rev. Charles Kingsley. Before long a house in Harley Street was taken for the purpose of "holding classes in all branches of female learning," and Queen's College was started. The organization was in direct imitation of King's College, all the professors receiving a pro-

portion of the College fees. In 1853 it was incorporated by Royal Charter.

Each class was opened with a lecture, in which the lecturer introduced and almost apologised for his subject, and for his share in the inauguration of the new movement.

Thus Professor Maurice apologised for using the word "College" and somewhat rashly made a forecast about the capacity of women to learn mathematics.

"We are aware that our pupils are not likely to advance far in mathematics, but we believe that if they learn really what they do learn they will not have got what is dangerous but what is safe." He saw that this is the root of the whole matter, "if they learn really what they do learn."—And again, "I cannot conceive that a young lady can feel her mind in a more dangerous state than it was, because she has gained a truer glimpse into the conditions under which the world in which it has pleased God to place her, actually exists."

Latin was to be taught not for its own sake but "as one road, and perhaps the shortest, to a thorough study of English." Miss Zimmern, who gives a very full account of these times in her book, remarks: "These explanations strike us quaintly now—it is hard to realize how great was the terror of learned ladies which in those days it was fashionable to assume."

I am not at all sure that the fashion of assuming this terror of "learned ladies" has died out even at the present time.

Next came Bedford College, for the first ten years of its life a school rather than a college—its beginning in classes held at her own home by the founder, Mrs Reid.

Her name is perpetuated through the Reid Exhibitions, and Scholarships awarded in connection with the London University Examinations.

To Queen's College—to which, then as now, a school was attached—came as pupils the first and greatest of the Public School Mistresses, Miss Frances Buss and Miss Beale,

whose names are always to be had in reverence by all who belong to the profession of teachers, and by all who have in any way benefited by the educational movement in which they were such notable pioneers.

In the conception of their work, and what it meant and involved in its developments, as well as in the performance of its duties and details, they stand forth in the lengthening roll of those who have done great service educationally to the girls and women of England.

In 1856 Miss Beale was appointed Principal of Cheltenham Ladies' College, which had been opened five years previously as a Proprietary School to provide for the girls in the town the same privileges as those enjoyed by the boys at Cheltenham College. The subjects taught in these early days were Liturgy, history, grammar, arithmetic, French, music, drawing, and needlework. There is no mention of mathematics or science or classics, or of physical training.

While Miss Beale was working at Cheltenham Miss Buss was building up the School which now bears her name, and which was to a greater degree than Cheltenham College typical of the first High Schools.

The North London Collegiate School was at first a private school.

In 1872 Miss Buss, seeing that public recognition and public support give the best security for the permanence of Institutions, placed the School in the hands of Trustees, and it became a Public School.

It was subsequently endowed with lands and tenements by the City Companies of Brewers and Clothworkers.

The schools having been started, the next step was to obtain University recognition for them, and here Miss Beale and Miss Buss had the valuable co-operation of Miss Emily Davis, the founder of Girton.

Miss Beale invited University Examiners to inspect and report on the Ladies' College.

In 1862 a small Committee, with Miss Davis as Secretary, obtained permission for girls to be examined informally, "as an experiment," on the papers set for the boys in the Cambridge Local Examinations started for them four years previously.

In this informal examination 30 out of 44 seniors failed in Arithmetic.

A memorial was next sent to the Vice-Chancellor of Cambridge from about 1,000 persons engaged and interested in education praying for the formal admission of girls to the Local Examinations. This was granted; and in 1865 the examination was held in six towns, Brighton, Bristol, Cambridge, Manchester, London and Sheffield. 127 Senior Candidates entered, 90 passed and only three failed in Arithmetic. A great change was working—the evils of the want of education, the abuses of the cheap day schools and the miserable provision made for teaching were not only recognised, but were beginning to be remedied.

In 1865 a Royal Commission was making enquiries into the condition of Boys' Secondary education. There was still no mention of, or thought for the girls. Another memorial was drawn up praying that girls' schools might be included in the enquiry.

This too was granted, and among the ladies invited to give evidence before the Royal Commissioners were Miss Davis, Miss Beale, and Miss Buss. The Royal Commission was followed by the appointment of eight commissioners who visited selected districts to report on the Girls' Schools. Great difficulties were experienced in getting information. What was collected came presumably from the best Schools. How bad must have been the worst!

The Report issued in 1867 brings the indictment which has become familiar, from its place for so many years on the prospectus of the Girls' Public Day School Company:—

"Want of thoroughness and foundation; want of system; slovenliness and showy superficiality; inattention to rudiments;

undue time given to accomplishments and those not taught intelligently or in any scientific manner; want of organization."

How could it be otherwise when the teachers were neither taught nor trained, and when the majority of the "establishments for young ladies" were kept by persons who had not even a rudimentary knowledge of the duties they professed to undertake?

School Text Books, including Miss Richmal Mangnall's Questions, are universally condemned. The teaching is said to be poor, and there is no external standard to act as a stimulus to the learner and help the teacher. But there is also in the Report a general recognition of the latent capacities of the girls and a lament over the want of opportunity and encouragement to develop them.

The crying needs were for better schools, for endowments and for more competent teachers.

Government had enquired but would do no more. The remedy was left to private enterprise; and, most happily for those who have come after, the women and the men with the brains to understand what was wanted, and the capacity and courage to carry out the reforms, were at hand, and through their splendid work "Knowledge is now no more a fountain sealed."

The report of the Commission was published. Meetings were held, speeches made, notably by Mrs Grey, and in 1871 the next great step onwards was taken when Mrs Grey with the late Lady Stanley of Alderley, Miss Gurney and others, founded the "National Union for Improving the Education of Women of all Classes."

Among the objects the Union had in view two were specially mentioned.

1. To promote the establishment of good and cheap day Schools for all classes above those attending the elementary schools, with boarding houses in connection with them, when necessary, for pupils from a distance.

2. To raise the social status of female teachers by encouraging women to make teaching a profession, and to qualify themselves for it by a sound and liberal education, and by thorough training in the art of teaching, and to secure a test of the efficiency of the teachers by examinations of recognised authority and subsequent registration.

The initial work of the Union was the foundation of the Girls' Public Day School Company.

This Company was inaugurated at a public meeting at the Albert Hall in 1872, and was formed with the object of obtaining capital to provide properly equipped schools.

The Princess Louise, Duchess of Argyll, signed the circular explaining the object of the Company, and became its "Patroness." Her interest in the Schools has never ceased, and has been shewn in many practical ways.

Among the promoters were Lady Stanley of Alderley, Miss Shireff, Mr Stone and Sir Douglas Galton, K.C.B., who have all passed away; Mrs William Grey, Miss Gurney, and Mr C. S. Roundell. To them and to those who worked with them, and who are now carrying on the work, England owes a great debt of gratitude.

The Council of the Girls' Public Day School Company inaugurated and developed the scheme of a network of schools all governed by the same Council, and yet each left to a certain extent free to grow and develop on its own lines in accordance with the individuality of its head and the requirements of the neighbourhood in which it is placed. The education supplied for girls was to be the best possible education; it was to correspond with that provided for boys in the great public schools; it was to be given at a moderate cost. The position of the Heads and Assistants and their relation to the Council was clearly defined. The Council chooses and appoints the Head Mistresses; the Head Mistresses select, and the Council appoint, the Assistants. The Assistants serve for a probationary term during which they can

be dismissed at one month's notice by the Head Mistress, without reference to the Council, but on sufficient cause to be reported to them. After the probationary term an agreement is signed and dismissal must follow two months' notice given by the Council.

This is a typical instance of the wise and statesmanlike view of its functions taken by the Council of the Company.

The internal organization of a High School is as follows:

The pupils are divided into Forms, or arranged in divisions for special subjects. School hours are approximately from 9 to 1. In some schools work for the younger children stops at 12 and goes on between 2.30 and 4. Practical Chemistry and Greek are sometimes taken in the afternoon, as are piano, violin, dancing, and special drawing lessons. Lessons for the next day can be prepared at school or at home. Most carefully prepared tables of home work are made to suit the requirements of each girl, based on her position in the School, her ability and her power of work. That these are in some cases disregarded, and that "over-work" results, is in nine cases out of ten the fault of the home authorities.

The girl who comes to school young and learns from the beginning to work with method is rarely over-worked. It is the girl whose early years have been wasted by incompetent teachers, who comes to school at 14 or 15 or older, and finds herself handicapped by want of knowledge and method, who becomes over-anxious and then over-worked, and brings discredit on the whole movement.

In all Public Day Schools for Girls the Saturday holiday is universal. From the point of view of teachers and scholars it is an unmixed blessing.

The first of the Girls' Public Day School Company's schools was opened at Chelsea in 1873 with 16 girls. Notting Hill followed with 26, Croydon came next in 1874 with 82, Norwich and Oxford in 1875 with 61 and 59 respectively.

Now, in 1900, the Company possesses 33 schools, 15 of these being in and round London. The number of its pupils exceeds 7,100.

And while the Company was developing and adding to its schools other famous ones were springing up in many of the great towns. The battle for the endowments had been fought and won, so far as could be; and, following the Schools Enquiry Commission and the Endowed Schools Act of 1867 came the establishment of the great endowed schools of Manchester, Birmingham, Bedford and others. Some of these are old foundations worked on new schemes; others, at Manchester for example, are the outcome of the work of Associations formed for promoting the better education of girls.

To sum up:

Between 1862 and 1900 (only 38 years), the whole status of girls' education has been altered, and this vast improvement is due mainly to Miss Buss and to the Council of the Girls' Public Day School Company. Their example on points of organization and management has been widely followed in the constitution and establishment of other Companies and of local High Schools now scattered up and down the country. It is to the exceeding benefit of all that the first Council of the Girls' Public Day School Company was composed of men and women ready and willing to take a wide and generous view of their own duties and of the position of those to whom their schools were entrusted. Guidance the Head Mistresses can have if they ask for it, interference they need never fear as long as their schools are recognised as efficient and progressive.

I now pass on to some comparison between the subjects taught in the early High Schools and in those of to-day, and between the methods and results of the teaching.

The subjects are now in name very much what they were when the first prospectus of the Girls' Public Day School Company Schools was drawn up in 1872. In this Classics,

Mathematics, Science, Physical Training were included. But the conception of the work and the ideals of the teacher of to-day have entirely altered during the last twenty years. Miss Richmal Mangnall taught facts, more or less accurately. So did the early High School teachers. They aimed at instruction, while the modern schools recognise that training the intelligence mainly by observation must go before instruction in facts.

"It is better to turn out one thinking man than a score of learned men."

This conception of what is required from the teacher has led to one great difference in the manner of teaching, and has made for progress which affects the work in all subjects. It is that the lecture system in girls' schools is a thing of the past. Note taking is discouraged; notes when taken are rarely copied out.

This is what one of the most successful teachers who taught in the early days of High Schools writes on this point:

"I think the great difference was in the teaching. It was certainly superior to private teaching but also very inferior to what is given now. I taught history by lectures, and had no idea of questioning or adapting my lecture to the capacities of the girls. In class I simply ran along during the whole hour and expected it all reproduced. The girls ran after me taking notes at the top of their speed and afterwards vied with each other in the number of pages they sent me in. The only text book I had was 'Smith's Hume.' I made up my lesson from that and learnt it by heart. I taught facts and nothing else. I had neither the knowledge of history nor of teaching necessary, and I believe most of us were equally limited. The Mathematical Mistress knew only two books of Euclid and the Science Mistress's Botany would be scoffed at now. Of course my own sense soon taught me to do better, but I expect many mistresses went on in the same way for years."

Subjects are now valued for the training they give, for their disciplinary value, as well as for the information gained in their study. This is the great distinction. The recognised subjects of a liberal education are all part of the general teaching and

training of every pupil, and the time table for each girl is arranged with a view to the supplementary value each subject has for the other. There is less rigidity. Too many subjects are not taken at the same time. Up to a certain stage, say a Lower Vth, good all round work is the aim as a preparation for the specializing which is then gradually introduced in Classics, Modern Languages, Mathematics, in English History and Literature, in Natural Sciences, in Drawing, and Music. The Vth and VIth Forms are allowed Free hours, and in them the girls are expected to work by themselves and read for themselves under guidance only from the teacher. Thus the subjects are lessened and the girls are encouraged to work for and by themselves.

Progress is also the direct result of the great improvement in the teaching power in Schools. Every year the number of women who leave the Universities to take up teaching in Schools increases. They have been trained and taught at School and College in a scholarly way; they have learnt at first hand from those who are masters of their subject. They have acquired a certain amount of scholarship themselves. Through them the education given to girls in the best High Schools is advancing by leaps and bounds. The debt the Schools owe to the Colleges for women, and to the Universities which receive them and teach and examine them, is a great one. The Schools are beginning to repay it by sending each year to the Colleges girls who are better prepared to begin at once to take advantage of the special teaching the Universities offer. I can remember the time when it was the exception for a girl to take the Previous Examination, at any rate Part I., Latin and Greek, before the end of her first year. From the best and most ambitious schools it is now the exception for her not to have taken the whole or its equivalent before she comes into residence, or at the end of her first term.

Progress has also resulted from the view now taken in the best schools of examinations.

In early days there was an almost feverish desire on the

part of the teachers for public examinations. All untrained as they were, they limited their teaching to facts, and really believed the aim and object of their lessons was success in examinations.

But as the Schools have become conscious of their progress, university examinations have taken their proper place in the scheme of work.

Inspection all through:— Viva voce examinations of the lower and middle Forms (personally I would cheerfully dispense with these), the Oxford and Cambridge Schools Examination papers for the higher, and the Oxford and Cambridge Higher Certificate and University Scholarship Examinations for the highest Forms make a satisfactory scheme of Inspection and Examination. It ensures thoroughness and gives encouragement to work done on the right lines.

The best authorities now agree that while it is well for a girl to pass a good examination before she leaves school, it only narrows the limits of her education for her to take public examinations too early. The standard reached by many VIth Form girls is shewn by their performance in Scholarship Examinations, and by the places subsequently taken by them in University Honours Lists.

I have had no means of finding out the complete number of University Scholarships won by public schools in any one year, but from the Girls' Public Day School Company's schools last year, 1899, 24 out of a possible 30 Scholarships were gained. If more Scholarships were offered—the number is lamentably small—I have no doubt that High School girls would be immediately found competent to hold them. It is not want of brains, but want of scholarships, and means, that prevents many promising girls from sharing the great advantages of University life and training.

In 1899 in the Final Honours Schools at Oxford two former High School girl's (Girls' Public Day School Company) were in the Mathematical List, five in the History, four in the

English Language and Literature. In Moderations five were in the Classical List, four in Mathematics and one in Modern Languages; a total of 21.

In the Cambridge Tripos lists two were Wranglers, two were Senior, four were Junior Optimes, three were in the Classical lists, five in the Natural Sciences, ten in the History, five in the Modern Languages; total 31. Fourteen took a London M.B., M.A., or B.Sc. degree, one a Durham, and three a Victorian degree.

The total number representing 26 schools—70 for one year.

To sum up:

The great progress which cannot fail to be recognised in our Schools is due:—

1. To improved methods of teaching.

2. To the improvement in the teaching power of Schools, notably by the employment of Specialists and trained teachers.

3. To the view now taken of the place of Examinations in School work.

Improvements in certain directions have also resulted from the conferences held from time to time, at which Papers on special subjects are read by experts and discussed by persons practically engaged in teaching them.

That there is much still to be done I should be the last to deny.

The problem how best to fit girls for their home duties and for the occupations of life and for the professions has been met; but how to make the most of the girl with rather less than average ability, the girl who is so little benefited by the ordinary High School curriculum; how to enforce the training which should bring with it to a greater number of girls the real love of learning and the desire to continue learning when the guidance of school is at an end: all these and many other problems remain to be solved we hope in the schools of the future.

Time does not allow me to say all I should like to on the modern teaching of important subjects.

With regard to mathematics I do not propose to enter into the improved methods of teaching any of its branches. I will only compare the words of Professor Maurice, "We are aware that our pupils are not likely to advance far in mathematics," and those of one of the Royal Commissioners, "It would be an affectation to say a word on behalf of the Arithmetic taught by ladies; it is always meagre and always unintelligent," with the numerous mathematical scholarships won at the Universities by schoolgirls and the report of the Oxford and Cambridge Schools examiners in arithmetic for 1899, "The result showed that arithmetic has been carefully and systematically taught in the Schools—that in nearly all the classes some girls, and in some classes a considerable proportion of the girls, had acquired a thorough grasp of the subject and reached a high degree of excellence as arithmeticians." The teachers in all cases were women. Equally good reports are given on the Euclid and Algebra.

Modern languages:—In the early days of High Schools these were taught by means of written exercises full of stereotyped sentences, English into French or German, French or German into English. Grammatical rules were learnt, great stress being laid on all the exceptions to the rule, and any curious and unimportant (to the general learner) peculiarities of form and language. Translation followed, but the number of books thought suitable for school use was lamentably deficient. Conversation as part of the School teaching was not recognised. There was method in the work and a certain amount of training and education to be got out of it, but the results were not to be compared with those which follow the consecutive and continuous teaching on a more modern scheme.

In the excellent scheme of which I have some personal experience, teaching in the lower forms is chiefly oral, but the pupils all through the lower and middle forms are encouraged in every possible way to apply for themselves in sentences and

translations the vocabulary and rules they learn. They learn and act scenes from history and fairy stories in French and German. Some grammar has to be learnt, and the greatest stress is laid on what is learnt being learnt and applied accurately, but it is the grammar which is necessary for the correct speaking and writing of the language, not the grammar of pedants and academies. Thus the foundations are well and truly laid for the advanced work of the Upper Forms.

The manner and style of University examination papers in modern languages has immensely improved, and now generally consists of unseen translation from French or German into English, translation from English into French or German, and prepared books with comprehensive grammatical questions. To do well on these papers the teacher had to make the pupil pay great attention to idioms and construction, to accuracy and to the improvement of style.

Conversation is greatly encouraged by the formation of small conversation classes under a foreigner who possesses the right temperament and who can interest her pupils and make them talk.

What we aim at is:—

1. Facility in understanding a foreign language—spoken by a foreigner.

2. That the pupil should express herself with facility and accuracy in the language, and that her accent should be as true as possible.

3. And,—most important—that the pupil's interest should be so thoroughly aroused in what she is learning that she will feel a wish to go on with the language and its literature when she leaves school and not put away her books with her school days.

SCIENCE:—Science subjects have been introduced into girls' schools in the order in which they are usually taken up, in any one school fairly well equipped for science work. But all in the past have been taught as more or less isolated subjects and in a fragmentary way. Object lessons and

Natural History followed by Botany were first introduced, and the work in them was almost entirely observational, completed by some attempt at Classification.

That is now usually the first stage of science teaching, but it has become more truly "Nature Study," since it is recognised that animals and plants should be studied in relation to their surroundings and that attempts in this direction can be made even in schools in large towns. But Botany as a class subject could not be continued as an experimental Science, and after the early stages it was either taught didactically, and became a mere exercise for the memory, or for it was substituted a series of demonstration lessons, illustrating the elementary facts of physical science of little if any higher educational value.

Not until the report of the British Association Committee on Science Teaching was published in 1889 was public attention drawn to the educational possibilities of Science as a School subject, and the demand which it made upon time and resources has retarded its development in girls' schools. But after 10 years, Science has a fair footing in the curriculum of many High Schools. Science Rooms which allow of free movement, and are provided with firm benches, and gas and water supplies, are being universally fitted up. The constant outlay for material is gladly met, the one lesson per week is increased to at least two or three, smaller classes are arranged, and the teaching staff consequently increased. The aims and ideals of the teachers it is true vary considerably. The heuristic method is adopted in most schools where a course in elementary physics and chemistry follows the nature study of the lower forms. But in many cases the teaching is still entirely on the old didactic lines with the addition of practical work, and the Science teaching is thus deprived of nearly all the moral and intellectual value which is claimed for it.

DRAWING:—Here again there is a strong contrast between the teaching of the present and the past. The influence of Mr Ablett's schemes and methods is happily well known and

generally appreciated. Therefore little need be said here. There is no copying. The pupil is taught to look at what is before her and render it in her own way. The powers of observation and memory are trained and developed, the eye is awakened to see and discover, the brain to remember and create. In the schools of to-day drawing, not as a handiwork only, but as a means of training is taught to every child.

The excellence of the method has enormously increased the pleasure of the pupils in their work; it has added to their equipment for their pursuits and work after school days are over; it has worked widely for good in the general curriculum of our schools.

The last point in the development of girls' schools with which I have to deal concerns the physical education and training given and encouraged. Here too the development has been all to the good.

Professor MacCunn in his excellent book on "The Making of Character" asserts,—and no one will contradict him,—that moral development is conditioned by bodily health. "Good health is a prime condition of practical energy. For energetic constitutions enjoy an advantage that goes far beyond the mere superior ability to do what others cannot.

"We may not impute physical languor and weakness with their attendant idleness as a sin; yet we must as little refuse to face the fact that a weak or sickly body is a grievous moral disability."

That our girls shall not have weak or sickly bodies is our keenest desire.

In many schools periodical examinations of backbones, and ankles and eyesight are made. Records are kept, skilled and scientific physical training is carried out. Nothing is neglected which can serve to make the body straight and strong and to develope perfectly all its powers. The benefit to the present generation of girls of the skilled care and training of their bodies cannot be exaggerated.

Of the obvious advantages to girls as well as boys of playing games in which their bodies are exercised, and through which their characters grow stronger, I say nothing here. Every High School of to-day has its playground, and nearly all have playfields as well. Games are organised through Game Clubs or by Games Mistresses and are played by mistresses and girls; Hockey, Cricket, Basket ball, La Crosse, Lawn Tennis and Rounders. Sports are arranged and carried through with not less seriousness and enthusiasm, though for less costly prizes, than in the case of boys. Swimming is taught and encouraged.

In this connection I will again quote, for the justification—if any be needed—of those of us who may seem unduly to encourage the playing of games, what Professor MacCunn has to say:

"If we are apt to have misgivings about the long hours and days given in youth to the strenuous idleness of sports and games we must not think too exclusively of the immediate results. We must think of the heavy drafts which arduous vocations make in after years on bodily vigour and endurance, of the habit of cheerfulness that follows health, and not least of that sense of insurance against whatever the future can bring which comes of the consciousness of calculable physical fitness. Plato startles us in his educational ideals by assigning 2½ of the most precious years of life to the exclusive pursuit of 'gymnastics.' If it seems too costly a tribute to the body it is to be borne in mind that it is prompted by the principle, 'Body for the sake of soul,' and finds its justification in the strenuous service to be exacted by the state of its citizens in later years."

I know of course that the author whom I have quoted is speaking of boys. I know too in the case of girls additional care has to be taken to guard against over-exertion and too great exhaustion. But I know also that nothing tends to better health and better work than games regularly and strenuously played. The body claims all that we can do for it. With bodily health comes vigour and sanity of mind, and things take and keep their right proportions—the strain and worry of mental exercises is lessened.

"Spontaneous wisdom breathed by health,
Truth breathed by cheerfulness."

I fear I may have seemed too laudatory of the work and influence of High School education—but in a paper not to exceed an hour in length it is impossible to say everything, and on such an occasion as this, while freely acknowledging that much remains to be done, I naturally choose to play the optimist.

I do not forget the many brilliant, highly cultured women whose names stand, and will always stand, in the front ranks of the educated women of England and who never went to a High School. Among those who leave our schools there are none who surpass them, and few who equal them, but they were and are the exceptions. But I compare the many women of 50 years ago who, longing perhaps for the opportunities of learning, and ambitious of sharing in the privileges so freely bestowed upon boys, had to be content with the husks of learning only, and to live out sombre, uninterested, self-centred lives without having had a single opportunity of realizing the advantages and pleasures of work honestly prepared for and well done—with the scores of happy contented High School girls and University students of to-day.

The exception may be no higher than before; but the average of serviceableness and happiness resulting from High School education is incalculably greater.

Briefly the influence direct and indirect of the better education of girls and women has added to the sum of their usefulness and happiness individually and collectively.

When the first High Schools were opened the women trained to work and capable of working on special lines were few and far between.

The want was recognised and deplored by all who needed their assistance. Miss Beale, Miss Buss, Mrs Grey put in the front of their programme the training and teaching of women and the testing of their powers and capacity. Thirty years ago the notion that a well-born woman should belong voluntarily to a profession was repugnant to parents and relations. That a woman should teach, or be obliged to earn her living, meant

that she became an object of commiseration to all who knew of her misfortune.

Well might the "National Union" speak of "raising the social status of female teachers." Women there were then who by force of character and nobility of aim rose above all prejudices and carried on bravely and successfully the work which they were inspired to do. Even for them the difficulties were great; for the mass idleness was the only genteel occupation. The new schools have changed all that. The need for teachers created and encouraged the supply, and the modern spirit is all in favour of women undertaking not only teaching but any occupation, and adopting any profession for which by nature, capacity and training they are best fitted. Honour to work and to workers is the rule, and it is beginning to be fully realised that through her work, and because of her work, the modern woman claims and holds a position among those who are honoured in the land.

The High Schools and Colleges are sending out their pupils to be trained as Doctors and Nurses, Factory Inspectors, Poor Law Guardians, Sanitary Officers, Teachers, Lecturers, Examiners. In business and in professions and in the performance of their home duties, where these call them, they are justifying the confidence of those who have so nobly and strenuously advocated the right of every woman to receive the education best suited to her power and capacities, and who have borne the heat and burden of the day in putting this within her grasp.

Not the least of the peaceful revolutions of the 19th Century is that which has made English Schools places of real education and training, which has raised the ideal of woman's vocation, and which has brought home to thousands the conception of what is due from them to their homes and to their country and placed it within their power to realize their ideal.

It is to be remembered that there are High Schools of all kinds—good, bad, and indifferent. A school is not good

because it is called a High School. I do not claim that even our best High Schools are perfect. But I do assert that they are alive; that in them there is a constant reaching after improvement, a constant study of new principles and methods with a view to their adoption if proved better than the old. If the schools of to-morrow—they too offer a most fascinating subject for discussion but they do not come within the scope of this paper—if the schools of to-morrow are consequently as great an improvement on those of to-day as these are on those of yesterday I for one shall be fully satisfied. I know that our best High Schools are better than any that have gone before, and that their influence on girls and women is for good. We live for our children,—to teach them and train them to be worthy citizens of a great country.

CHAPTER VI.

THE TEACHING OF HISTORY IN ENGLAND IN THE NINETEENTH CENTURY.

BY

PROFESSOR WITHERS.

Analysis. (1) Connexion of the subject of the Lecture with the central topic of the Summer Meeting, "Life and Thought in England in the Nineteenth Century"—(2) The 'historical method' and the 'historical sense' distinguish this century from the 'à priori' philosophy and the unsympathetic treatment of the past which marked the Eighteenth—Examples of this tendency in the Theory of Government, in Theology, and in Literature and Art—The idea of *development* the central idea in the thought of this century—(3) At the opening of the century the striking feature of the studies of our Universities and Public Schools was, with certain exceptions, the supremacy of the single classical curriculum, as instituted at the Revival of Learning—This contained 'implicit History,' although History was not taught as a separate 'subject'—(4) The Nineteenth Century is marked by the break-up of the single curriculum—History emerges as a substantive subject—attempt of Thomas Arnold to preserve unity in the scheme of a liberal education—History the central subject in his system of practice, as it was in Herbart's system of theory—(5) The last third of the century sees 'specialisation' dominate our studies—The treatment of History in every grade of our schools is unsatisfactory—(6) The great requisite for the progress of our education in the Twentieth Century is a simpler and clearer idea of a liberal education—Place of History in this idea.

It is sometimes made a point of objection to meetings such as the one that we are all attending during these weeks at Cambridge, that the lectures delivered at them are upon topics so various and so many that the effect is mainly to bewilder and to distract. The student, it is said, goes from discourses on Dante and the Nebular Hypothesis in the morning, to addresses on Bacteriology and the Music of Richard Wagner in the afternoon. His hasty and rather puzzled pilgrimages from one quarter of the town to another are, according to our critics, a fit symbol of his wandering attention; and the farrago of his note-book is a picture of the confusion of his mind. Such a criticism may have an element of truth in it, although it is based on an exaggerated disbelief in the power of the mind to deal with and to arrange the material which the mind receives. But we may claim that the Syndicate has on this occasion provided us with a core of thought round which we may group our ideas, and so has given a certain unity of action to our drama. "Life and Thought in England in the Nineteenth Century" is our unifying conception, in relation to which we are to arrange all the multiplicity of our notions on the many subjects of our Time-Table. It is a historical conception and therefore in intimate connexion with the special subject of my own lecture, which is that of the Teaching of History.

History in its widest sense is perhaps the most characteristic form of intellectual activity in the nineteenth century. Incalculable as has been the influence of the study of the natural sciences, it may be doubted whether after all the influence of history in all its different forms has not been greater still upon the life of the nation.

If one contrasts roughly the prominent type of mind towards the close of the eighteenth century with the prominent type in our own generation, one may question whether any difference goes quite so near the centre as this, namely, that in the eighteenth century the *historical sense* was in a great degree

absent or undeveloped. Take the chief spheres of national life and compare them, then and now. In the theory of government and law the eighteenth century dealt with its problems abstractly and metaphysically. Voltaire, Rousseau, Montesquieu, working out the suggestions of Hobbes, produced *à priori* doctrines on the nature of Sovereignty, on the Social Contract, on the Rights of Man, which were completely unhistorical in character. In England they had their counterpart in Bentham and the Utilitarian School. These theories profoundly influenced the great final movement of that century, the French Revolution, which was an organised attempt to abolish the history of a nation, and to create a new *régime* in a vacuum. On the other hand, the nineteenth century has seen the Theory of Government put upon a historical basis. Here, in Cambridge, Sir Henry Maine in his famous work on *Ancient Law*, and many other jurists have worked out the comparative study of politics and the origins of political ideas, and have given us the new conception of the State as a growth from primitive conditions and customs, a growth which, if it is to be healthy, must be gradual and continuous. The practical politics of the century have confirmed this historical conception: those elements of the national life which *à priori* philosophy in France had sought to abolish by decree—the Monarchy, the Nobility, the Church—have proved to be living forces, which the new *régime* has to struggle with in a bitter war, whereof the issue at this moment hangs in the balance after frightful reverses and frightful victories for one side and the other. By contrast, in England the principal institutions of the State are in a position to-day of far greater security than a hundred years ago, because they are seen in a historical perspective, and their defence is based not upon logic but upon prescription.

The same general difference between the two centuries is observable in points of theology and religious practice. The Tractarian Movement in the second quarter of this century and

the Biblical Criticism of its third and fourth quarters are of a strikingly different character from the Wesleyan movement or the Deistic Controversy of the eighteenth century; and the distinction may be most shortly expressed by saying that in the eighteenth century the main appeal is to *à priori* arguments and to religious or philosophical dogma, while in the nineteenth it is to history and to the historical method that the disputants turn for their weapons.

So, also, in Literature and Art, the Romantic Movement which marks the beginning of this century and is associated with the names of Wordsworth and Walter Scott, and the later Pre-Raphaelite movement led by Rossetti, and Holman Hunt, and Millais, and supported in certain aspects by Ruskin, originated in a return to earlier models and in sympathies which we may call historical. Similar influences have inspired our architects and our house furnishers: Pugin and Gilbert Scott and William Morris have gradually altered our national taste by taking us back to medieval examples. In the Drama we have at least so far acquired the historical sense that we should not be able to tolerate a Macbeth in the guise in which David Garrick presented him—a perruque and silk stockings, conspiring with his lady in a hooped skirt and a turban. Even in History itself, the whole tone and atmosphere have changed. The mighty work of Gibbon, however accurate in mere statements of fact, is falsified by a lack of historical sense and historical sympathy, such as incapacitated him from understanding either the early Christian Church or the life of the Middle Ages. One has only to compare him with Ernest Renan to see the gulf that divides history as we conceive it now, from the unimaginative and unsympathetic treatment which it received 120 years ago. So also our entire conception of the nature of language has been revolutionised within this century by a study of its history and by the consequent discovery at the hands of Schlegel of the Indo-European family of tongues, and of the cousinship of English, and Greek, and Sanskrit. Even

the greatest scientific generalisation of the century—the theory of evolution—in a sense belongs to, and has itself profoundly affected, the realm of history, since it reveals the long process of infinitely slow development by which animal and plant life have come to be what they are. It is, in fact, the idea of *development*, the central idea of history, which, more than any other single idea, characterises the thought of the nineteenth century.

Ours then is the century of development, the century of history. It is in accord with this fact that we find that the study of history as a separate subject in our Public Schools and Universities first emerges during this period. It would not indeed be true to say that History was not taught at all before 1800. The Professorships of Modern History at Oxford and Cambridge were founded as long ago as 1724 by George I. But these foundations seem to have produced no striking result either in the shape of original research or of influence upon University studies until the present century. The University of Oxford rather resented the endowment as a Whig political move. "Not only" says Dr Stubbs "did they acknowledge the receipt of the King's letter in a most contemptuous way, forwarding their letter of thanks by a bedell, but, when by due pressure and by the example of Cambridge compelled to send a formal answer by a deputation to the King, clothed it in such words as showed that the introduction of the new study was looked on as an unwarranted interference with the educational Government of the place." And it is quite certain that no holder of the Professorship down to the time of Dr Nares in the early years of this century did anything to overcome the sullen suspicion with which the foundation of the chair was first received. At Cambridge the only one of the Royal Professors of Modern History during last century whose name is remembered in this was the Poet Gray. So again in regard to the Public Schools it would not be exact to say that there is no trace of History having been taught a hundred years ago.

Thus Dr James, who was Headmaster of Rugby from 1778 to 1794, used to devote the first lesson of the week, which began at seven o'clock in the morning, to the subject of Scripture History varied in a regular cycle with Goldsmith's Roman History and the History of England. This was, however, only the case with the Fifth and Sixth Forms. I cannot find that History was taught in the lower part of the school. And the single hour before breakfast given at Rugby appears to have been wholly exceptional. I have not been able to discover anything similar at Eton, Harrow, or Winchester. Even at Rugby one could hardly say that History formed a part of the regular curriculum. So that speaking broadly we may say that History as a separate subject formed no part of the course of studies at the Universities and Public Schools in the year 1800. On the other hand the curriculum, such as it was, embodied some of the most important facts of European History between the age of Pericles and the Revival of Learning, and formed in itself a historical document or relic of an extraordinarily interesting kind. The classical curriculum of our Universities and Schools which continued until well on into this century, practically unchanged, was itself in its origin a result of a movement for reform, a movement which like those of our own time assumed the shape of an appeal to the past and a return to earlier models. The history of intellectual progress is marked by a series of revolts against systems of education, in which the human spirit seeks to save itself from being strangled in formularies of its own making, by struggling back to a more primitive and less complex stage in its own development, by appealing from the Rabbis to Moses, from the Aristotelians to Aristotle, from the Fathers to the Apostles. Such a revolt was the substitution of the great classic writers for the works of the Schoolmen, a revolt consummated in England in the sixteenth century. Perhaps the essential advantage of this change was that it put in the hands of schoolboys and students books which, directly or indirectly, contained the history of Mediter-

ranean Europe at its highest point of culture. Scholasticism, as was natural from its deductive methods, had no place in its curriculum for history; classicism, although it did not teach history as a specific subject, yet offered its students historical material of the most precious kind. Thus while it is true that in 1700 history was to all appearances no more recognised as a part of the curriculum at Oxford or at Winchester than it had been in 1500, yet we must remember that at this later date our ablest scholars read, as a matter of course, the great masterpieces of Ancient History as well as the great Poets whose works illustrated—as nothing else could illustrate—the history of the age in which they wrote. Thus we may speak of the classical curriculum as Implicit History, because it contained in itself, not consciously disengaged from literature, a mass of historical material.

At the close of the eighteenth century, however, classicism had in effect fallen too completely into the hands of the commentator and the versifier, and the subject-matter of the great classic writers had ceased to be studied with the enthusiasm of the sixteenth-century scholars. The intellectual life of our Schools and Universities was torpid and unproductive to the last degree; the great stimulus of the Revival of Learning had spent its force. It may even be doubted whether Oxford at the very close of the scholastic period was quite so profoundly asleep as she was towards the close of the classical period. "For a moment," says Mr Rashdall in his great book on the Universities of Europe in the Middle Ages, "for a moment the "human world was brought into real and living contact with a "new world of thought and action by the 'New Learning': "but ere long classical education in turn became arid and "scholastic—as remote from fruitful contact with realities—as "the education of the Middle Ages. The history of Education "is, indeed, a somewhat melancholy record of misdirected "energy, stupid routine, and narrow one-sidedness. It seems "to be only at rare moments in the history of the human mind

"that an enthusiasm for knowledge and a many-sided interest "in the things of the intellect stirs the dull waters of educa- "tional commonplace. What was a revelation to one genera- "tion becomes an unintelligent routine to the next. Considered "as mere intellectual training, it may be doubted whether the "superiority of a classical education, as it was understood at "the beginning of this century, to that of the medieval "Schools was quite so great as is commonly supposed. If in "the scholastic age the human mind did not advance, even "Macaulay admits that it did at least mark time. The study "of Aristotle and the schoolmen must have been a better train- "ing in subtlety and precision of thought than the exclusive "study of a few poets and orators."

If you carry your mind from 1800 to 1900 and survey the period between you will see that the significance of this century in the history of the higher education is that the single uniform curriculum of the classics which, with certain modifications (as for instance the great attention given in Cambridge to mathematical studies) had been handed down just as it was from the age of the Renaissance, has been broken up, that alternative schemes of study have been admitted side by side with the classics, and that even where the classics remain the chief staple of the intellectual training given, other subjects, in particular mathematics, history and modern languages and a little natural science have been superadded. The unity of the curriculum in the places of higher learning has been, for the time at any rate, lost and the era of *specialisation* has begun. The full effect of this immense revolution in our education is but little grasped by any of us as yet. However we are not here concerned with the general theory and history of our higher curriculum but with the fortunes of a single portion of it.

The great impulse which the Romantic Movement in Literature led by Sir Walter Scott gave to the study of History took effect in general literature, in private reading and in private schools, more particularly in schools for Girls, some

time before it touched the general body of the public schools. In the second third of the century, Thomas Carlyle and Macaulay began to exercise their prodigious influence over the English middle classes, an influence which has perhaps done more than any other single cause to familiarise the national mind with historical images and historical ideas. Neither can be called a professed teacher of history. Macaulay declined the Professorship of Modern History at Cambridge when the Prince Consort offered it to him, and Carlyle lectured, not at a University, but by way of private venture, in the Portman Rooms in London. He gave four series of historical lectures —in 1837, 38, 39, and 40. In this last year his subject was Heroes and Hero-worship, and this was the only series of the four that he ever wrote out and printed. It is with Thomas Arnold that the systematic teaching of History in our public schools begins. His headmastership at Rugby lasted from 1829 to 1842. His peculiar glory in the records of our education is that whereas, when he came to Rugby, he found on one side a society of Boys with a strange corporate life of their own with games, institutions, and laws of a spontaneous and irregular growth, and on the other side a system of instruction and religious training entirely without relation to or influence upon that corporate life, he contrived to fuse every part of the school energies into a unity with a central purpose. The self-governing commonwealth of the Boys themselves he retained and confirmed, with certain modifications, but this commonwealth was to be so truly ordered as to train its members to take afterwards an active part in the life of the larger commonwealth of Church and State; the instruction whether religious or secular was to interpenetrate and to illumine the life of this commonwealth by introducing the boys to the history of other such communities and to the great literatures ancient and modern by which the ideas of those communities, at their best, have been interpreted and expressed. In Arnold's conception, the English gentleman must not only learn to rule and to be ruled,

and to play football and to speak the truth, but he must also understand the history of his country and the history of Christendom, and the literature of Greece and Rome, which along with the sacred books of the Hebrews lies at the foundation of Christendom. The unity of education, the unity of history are his moving ideas; and we shall fall short indeed of the true estimation of Arnold's work for the study of history if we confine it to such matters as his co-ordination of geography with history, his constant use of the Blackboard in historical instruction, his comparative method of treating ancient and modern history, or even to the admirably devised cycle of historical lessons which he embodied in his school curriculum. Infinitely more important than all these important things was the clearness with which he himself apprehended and taught others to apprehend, the bearing of literature and of history upon life, and of life, in its turn, upon literature and history. He thus put upon an entirely new basis the claim of the old classical curriculum to furnish the best training for the modern Englishman. Our innermost intellectual and spiritual life, our laws, politics, religion are charged with forces which we cannot understand nor wisely deal with unless we study them in the light of the single continuous historical process by which they have come to be what they are. Arnold therefore, like Herbart, concentrates and unifies his curriculum; but he does far more, he concentrates and unifies the whole of human life; the core of his circle of studies is active Christian citizenship, and their proportionate value depends upon the degree in which they help to make that citizenship intelligent and earnest.

Arnold's influence as a teacher of History was, of course, not confined to his work at Rugby. In the last two years of his life, 1841 and 42, he held the office of Professor of Modern History at Oxford and, short as his tenure of the chair was, he roused the greatest interest and enthusiasm by his lectures, and placed the study of History in a position of importance which it had never held before. He also profoundly affected

the views of his successors and likewise of those who held the corresponding Professorship at Cambridge. Edward Freeman at Oxford and Charles Kingsley at Cambridge in very different ways continued to expound the views of Arnold. The famous saying that "History is past Politics, and Politics are present History" was one of the sides of his teaching upon which they laid most stress, and which in the last quarter of this century Seeley made the central idea of his work as Professor at Cambridge, in this slightly altered form, "Without History, Politics has no root; without Politics, History has no fruit." This was a view which, to some minds, appeared to have its dangers, and there arose in opposition to it a School which demanded that History should be regarded as a purely abstract antiquarian subject, and that the bearing of the past upon the present should—as a possible cause of prejudice and partisanship—be strictly kept out of its judicial investigations. Of this School Bishop Stubbs, who was appointed Professor at Oxford in 1867, has been the most distinguished representative in England. Under the influence of men of this way of thinking the efforts of historical students were bent specially to discover the exact and minute truth before any inferences should be made from it. Time forbids us to do more than mention the immense services performed by this school of historians and by the Public Offices which under their inspiration have, both in England and abroad, issued copies of ancient documents, charters, and records such as have revolutionised our ideas more particularly of the Middle Ages.

This split of the historians into the political school and the antiquarian school was followed by further subdivisions. Social life and customs, details of dress, household furniture and the like and all that we vaguely include under Archaeology or Anthropology, had a greater attraction for some scholars than the history of political or municipal institutions, and we have seen arise in this last third of the century a School of Archaeologists which by its excavations and researches have recon-

structed before our eyes the minutest details of ancient domestic life. One might pursue this process of specialisation and subdivision into many other branches, but it is enough to say that the study of History has become a general name for several groups of highly differentiated scholars who work exclusively at special sides of the whole historical field.

The consequence of this has been one, which is, in a way, a direct contradiction of the view of Arnold. It has been thought necessary to divide History from Literature, and to make it a parallel and as it were alternative subject. A special Tripos in History was established by a Grace at Cambridge in 1873 and the first examination was held in 1875. A similar step had been taken some years before at Oxford, where, however, for some time the school of history was combined with the school of law. Henceforth, at both Universities, it became possible to graduate in History, as an alternative to Mathematics or Classics.

The general upshot of this was a curious one. We have seen that, up to the time of Arnold, History was practically not taught as a subject at our Public Schools and Universities. His influence, however, was so great, and was backed by such an overwhelming weight of social opinion that History gradually came to be studied more or less thoroughly at both one and the other. This process was, however, an exceedingly gradual one. When the Public School Commissioners published their report in 1864, it was still the case at Winchester that neither "ancient nor modern history is taught in set lessons, and ancient history does not enter as a separate subject into any of the School Examinations." "I wish," says Dr Moberly, the Head Master, to the Commissioners, "we could teach more history; but as to teaching it in set lessons, *I should not know how to do it.*" It is worth while to compare with this remark of the good Doctor's a passage in Mr A. F. Leach's *History of Winchester College*, where, describing the extreme aridity and dulness of the purely classical studies, even in the Sixth Form, he says

that the one or two exceptions to this dulness live in his memory: as for instance when one day in the year 1866, Dr Moberly came into the room and told them that war had been declared between Prussia and Austria. He delighted the boys by giving them a vivid account of the relations of those two powers in the past, and of the circumstances which had brought on the war, and he wound up by hazarding the prophecy that the war would perhaps last the lifetime of some of them. As a matter of fact the war was over in six weeks. This was just two years after Dr Moberly had said that he should not know how to teach set lessons in history.

This entire absence of the set teaching of History at Winchester in 1864 may be compared with the account of the elaborate system of teaching of the subject, as now conducted there, given on pp. 220, 221 of the *Report of the American Committee of Seven on the Study of History in Schools.*

Similar particulars might be given with regard to other Public Schools, but the main point is that whereas in the first third of the century, history was scarcely taught at all, and that in the second third it was introduced into Rugby by *Arnold*, and elsewhere by his pupils and followers, as for instance by Vaughan at Harrow, in the third section of the century it practically became universal in Schools, in one form or other, and was made a Special subject at the Universities as one of the alternative avenues to a Degree in Arts.

The specialist character given by this change at the Universities to the study of History seriously threatens its position as a part of a liberal education. Arnold's view was, as we have seen, that History was essential to a comprehension alike of literature and of life, and must indispensably be taught in appropriate shapes to every class of the School.

On the other hand, the recent view tends to the specialist conception, namely that History is one of a number of options which a boy may choose between, as soon, at any rate, as he reaches the age of 15 or 20. While the classical specialist is

doing Greek Iambics, the history specialist is reading Mommsen and Stubbs, and the mathematical specialist is doing the Binomial Theorem or Trigonometry.

An exactly similar conception prevailed until this very year 1900, in the Primary Schools. History was an option which might be taken or left at the discretion of the schoolmaster, with the further provision that it must *not* be taken if any two other class subjects were selected. Thus if Geography and English Grammar were taught at any Elementary School, *ipso facto* History was excluded.

This extraordinary view of knowledge—that you can cut it into slices like a melon, and that it is unwholesome for any one person to take more than two or three of these slices for himself, has practically destroyed within the present century the idea of an 'all-round' liberal education in England. That idea does not exist at our Universities; it does not exist at our Public Schools; it *does* perhaps, exist, though precariously, at some of the Girls' High Schools; it has sprung into existence again in the Primary Schools, through the introduction of the Block Grant in this present year of grace.

But at the moment we see the paradoxical result that the emergence of History as a distinct subject from Literature, so far from securing it a safe place in the curriculum of a general education, threatens to relegate it to the limbo of alternative specialisms, along with Organic Chemistry and the Integral Calculus. Poor Clio! scarcely had she once more taken her place among the Muses, welcomed by her sisters of Poetry and Science, than she and the rest of them are torn from the lovely group in which they moved with arms intertwined, and shut up by the grim inquisitors of mysterious Examination Boards, into separate compartments, where, in spite of their shrieks, they are cut up into subdivisions, such as archaeology, palaeography, anthropology, epigraphy, and I know not what. Every subdivision is carefully dried into mummy, and then labelled

Part I Division II of Subject xxxiii (*c*) in some University Calendar.

We all of us know the forces which have relentlessly driven us in this direction. The difficulty is truly a great one. The field of knowledge has been extended and deepened during the last 75 years to a degree unparalleled in the previous history of mankind, and the question how to give a general education which shall be at once wide and at the same time not superficial, has been made immensely more complicated. It is to that question, on the solution of which our intellectual vitality in the future more than on any other depends, that we shall have to address ourselves in the twentieth century. I venture to think that Herbart in theory, and Arnold in practice, have done much to suggest the practicable solution. We must lighten our curricula not by throwing away this or that indispensable limb of the organic unity of knowledge, but by making those curricula consciously represent that unity, by showing the organic connexion of their different parts and obliging each subject to play into the hands of all. When we seriously set ourselves to carry out that task, we shall find that history, in its widest sense, as the record of the process by which man has come to be what he is, already furnishes a subject by means of which it will be possible to correlate the various aspects of knowledge, as they have in positive fact been correlated in the gradual upward progress of humanity.

CHAPTER VII.

SCIENCE TEACHING IN SCHOOLS.

BY

DR KIMMINS.

THE subject of this lecture is such an extremely wide one that I propose to devote my attention almost exclusively to the teaching of experimental science and botany, because it is in these directions that very special attention has been given in recent years to the methods of teaching.

In tracing the history of science teaching in schools, it is important to notice the very powerful influence that has been exerted by the Science and Art Department. It has become the fashion in recent years to abuse this Department in season and out of season for all the shortcomings in methods of scientific instruction, and undoubtedly its influence on the teaching in schools has been far from an unmixed good. It would, however, be impossible to overestimate the beneficent influence it has exerted in adult instruction in science and art throughout the country. The reason of its comparative failure in the schools in the past is not difficult to explain.

In 1835, schools of design were established by the Government under the Board of Trade for the purpose of extending a knowledge of art and design among the manufacturing population. In 1852 this was extended to elementary schools, under a separate department, the department of practical art. In

1857 the control and direction of science and art teaching was taken over by the Committee of Council, and grants were instituted for art, so that localities desiring to have them, could start schools of art, which were subsidised in this way by the Government. In the following year a department of science was formed to bring under one management the control of the science, trade, and navigation schools which already existed.

The declared object of the Science and Art Department from the first was to give higher education, and it was only some time after its institution that certificates were granted to teachers to teach science in the schools. In 1861 the first May examination in Science and Art was held, and in 1862 the principle of payment by results was adopted. Thus from the first, in art teaching as well as science teaching, the instruction was mainly intended for adults, and was only subsequently introduced into the schools. This goes far to account for the shortcomings of the system.

The syllabuses of the examinations in science were based entirely upon the information required by the average man in his daily work, and the educative value of the course laid down and the method of approach of the various subjects were matters of subordinate importance. For the purpose for which they were intended these syllabuses were undoubtedly admirably adapted, and if they had been confined to adults all would have been well. But the work of the Science and Art Department extended very rapidly, and, under certain conditions, children in day schools were admitted to the examination, in many cases, I fear, rather with the view of obtaining grants than for the appropriateness of the subjects chosen for educational purposes. It was in this haphazard way, which is so eminently characteristic of educational movements in England, that the general idea arose that the one object of education in science was to give information which would be of value in the after-life of those attending the classes.

The time-honoured maxims, "learn by doing," "never

teach a child that which he can learn by himself," and others which convey the same idea, are well known to all interested in the theory and practice of education. That the science teaching in English schools has, generally speaking, been in direct opposition to such maxims is also well known. Here comes in the great difficulty which has been the most important factor in retarding the progress of rational teaching in this country—the absence of any direct influence of those immediately concerned in the teaching of children with those who are responsible for drawing up the syllabuses of public examinations.

Mr Reeves, who was for a long time Minister of Education in New Zealand, read a paper at an Educational Congress a short time since, on Education in New Zealand. In that paper he described how in that go-ahead colony they have a Central Department, with its Minister of Education, exercising control over powerful Local Education Boards throughout the country, these being aided again by district school committees responsible for the inspection of the schools, supplemented, of course, by Government inspection. And what, to my mind, is a matter of supreme importance, they have an Educational Institute, which is practically a national union of teachers, which is recognised by statute, is consulted continually by the Central Department and the Local Boards, and exerts a very considerable influence, to the great advantage of teachers and administrators.

Had there been any such official connection between teachers and the public departments concerned in education in this country the old style of science teaching in schools would long since have disappeared. Unfortunately, those in control of public educational institutions are not necessarily qualified to judge of the value of the instruction being given. But it is quite remarkable how many people, otherwise modest and estimable, persuade themselves without the slightest foundation that they are competent to judge on all matters relating to

education. All who have been so unfortunate as to be present at many prize-givings at schools know too well how anybody, from the curate fresh from the university down to the local mayor, is prepared to speak at great length, to the infinite boredom of everybody, on the subject of education. Governing bodies exercising little influence in educational matters, teachers have been very largely at the mercy of boards of examiners.

It will be interesting to see in the future administration of education how far the matters to which I have referred will be remedied by the presence of a consultative committee of educational experts which shall advise the Board of Education, as provided for in the Board of Education Bill. Very much will depend upon the extent to which this committee will be consulted in drawing up syllabuses and schemes of study. In the Bill it is stated that the work of the committee will consist of (*a*) framing, with the approval of the Board of Education, regulations for the formation of a register for teachers, and (*b*) advising the Board of Education on any matter referred to the committee by the Board. It is evident from (*b*) that the consultative committee is not to speak unless it is spoken to; it rests entirely with the Board of Education how much or how little influence this committee shall have. It will hold a very different position from the Educational Institute in the scheme of administration in New Zealand. However, we must hope for the best.

The syllabuses of the Science and Art Department were drawn up by men distinguished in science, holding the highest academic positions, but who disregarded entirely in the course of instruction laid down the suitability of such subjects for mental training and discipline. The consequence was the ground covered by the syllabuses represented the amount of information which could be imparted by a successful teacher in thirty lessons, and the subject-matter was largely determined by its value as information.

This is the issue on which the whole matter turns. Is

instruction to be given in schools in science for the purpose of information in these subjects, or for the purpose of mental training?—a perfectly plain issue, utility or education—an issue on which there can be no compromise. A syllabus of work excellent from one point of view is quite useless from the other. If the intelligence is to be developed by this means, if the child is to find out things for himself, if he is to perform experiments, address his own questions to nature, make his own observations, and draw his own conclusions, and simply have the proper conditions supplied by, and receive suitable information and guidance where necessary from, his teacher, the amount of marketable information which he will acquire, as tested by ordinary methods, in a session will be about the same as his teacher might have imparted to him as information in two or three lectures. Further than this, the teacher who is most successful in storing the child's mind with the greatest amount of information is also the most successful in removing any necessity for the child to think for himself. He has simply to receive information and reproduce it preferably in the exact order in which it was given at a suitable opportunity in reply to examination questions.

There is a vast deal of truth in Thring's condemnation of this kind of teaching. "Education," he says, "is not book-worm work, but the giving the subtle power of observation, the faculty of seeing.....If the cursed rule-mongering and technical terms could be banished to limbo, something might be done. Three parts of teaching and learning in England is the hiding common sense and disguising ignorance under phrases."

A very influential committee was appointed by the British Association in 1887 to enquire into the present methods of teaching chemistry. The full report, issued in 1889, was strongly in favour of chemistry being taught as a branch of mental education. As this report has had such a remarkable influence in modifying the teaching of science in schools, I make no apology for giving some important extracts from it.

British Association Report, 1889.

"The Committee are convinced that the high educational value of instruction in physical science has never been exhibited to its full advantage in most of our educational institutions. Nevertheless, there exists already a considerable body of experience which proves that there is no more effective and attractive method of training the logical faculties than that which is afforded by a properly arranged course of instruction in physical science; by no other means are the powers of accurately ascertaining facts, and of drawing correct inferences from them, so surely developed as they are by the study of this subject.

"It cannot be too strongly insisted that elementary physical science should be taught from the first as a branch of mental education, and not mainly as useful knowledge. It is a subject which, when taught with this object in view, is capable of developing mental qualities that are not aroused, and indeed are frequently deadened, by the exclusive study of languages, history, and mathematics. In order that the study of physical science may effect this mental education, it is necessary that it should be employed to illustrate the scientific method in investigating nature, by means of observation, experimenting, and measuring, with the aid of hypothesis; the learners should be put in the attitude of discoverers, and should themselves be made to perform many of the experiments. The lessons ought to have reference to subjects which can be readily understood by children, and illustrations should be selected from objects and operations that are familiar to them in every-day life. Chemistry is particularly well adapted for affording this kind of instruction, and the committee are of opinion that a course which is mainly chemical will be most useful in developing logical habits of thought.

"Chemical enquiry involves, however, the use of various physical processes, and these are themselves of great value

from the point of view from which the instruction is being given. It is also of great importance that the learners should become acquainted with the characteristic instrument of physical science, viz., measurement, and therefore quantitative processes should be largely made use of.

"They do not desire to bring forward physical science as a substitute for any of the subjects of study, but they ask that like these subjects it should be looked upon everywhere as a necessary part of education, and that it should receive a due share of the time devoted to school work."

So much for the report. Here then is a very definite answer to the question, an answer given by a very distinguished committee of scientific men and experts in educational matters. The ruling spirit on this committee was Professor Armstrong, who since the issue of the report has left no stone unturned to get the kind of teaching it recommended introduced into teaching institutions. It is very largely due to his untiring advocacy that public opinion regards it at the present day with so much favour.

As an answer to the other side of the question, it may be said that, in an enquiry instituted by the Technical Education Board of the London County Council in reference to the teaching of chemistry, the evidence of chemical manufacturers, chemists at chemical works, and others was strongly in favour of chemistry being used as an instrument of education in schools rather than for the purpose of information. The opinions expressed were to the effect that the information so imparted in schools was of little value, even when the boys were afterwards to be employed in chemical works.

The recommendation of this committee with regard to the teaching of chemistry in secondary and continuation schools was as follows:—

We are of the opinion that the teaching of chemistry in schools should be solely of an educational nature, and should have no reference to practical applications.

1. That chemistry is a valuable subject for school teaching, but that it should not exclude training in mathematics and languages, but should with these form part of a general education.

2. That it should be preceded by an elementary course of physics, to be treated as much as possible as exercises in measurements and practical arithmetic.

3. That the work should be always largely practical.

4. That attention should be paid to the style of the daily record of work, so that it may serve as an education in handwriting, grammar and English composition.

5. That no attempt should be made to impart in schools any knowledge of the application of chemistry for commercial purposes, except in so far as the products of such operations concern the common phenomena of every-day life.

Although the Report of the British Association was issued in 1889, and the conclusions were not combatted but highly approved by educational authorities, for a long time it made practically no headway in schools. Public examinations on which grants were obtainable, favoured the old style of teaching, and it was quite impossible to carry on the science departments of poor schools without these grants.

Here again we meet with the difficulty of having no organisation for bringing the influence of teachers' opinions to bear upon the proper authorities. If such a report had been published in New Zealand, the kind of teaching recommended would probably have been introduced into schools in the following session, or the Educational Institute would have known the reason why.

In some discussions which have taken place in reference to the tardy introduction of reforms in science teaching, blame has been cast most unjustly on headmasters and science teachers. Whoever may be to blame, we must surely exempt the teachers. Naturally they are anxious to make the science teaching in their schools as efficient as possible, but in many cases it

would have meant financial disaster to cut themselves adrift from the grants, by which alone it was possible to keep the science department of the school afloat. Moreover, the improved method of teaching meant more laboratory accommodation, better equipment, smaller classes, and an increased teaching staff.

In 1890, the Local Taxation (Customs and Excise) Act altered the position of affairs. Money was placed in the hands of the County Councils for distribution for purposes of technical instruction. One useful avenue was at once discovered in the assistance of secondary schools under public management for the strengthening of the science side. Liberal grants were made for equipment of laboratories, lecture-rooms, and workshops, and maintenance grants were made to enable the schools to live up to their increased facilities for science teaching by an increased staff, and in many cases a more efficient staff. I believe throughout the country the treatment of secondary schools in this respect has been very generous, and I venture to think no money has been better spent.

In inspecting secondary schools in London in 1892 for the purpose of Mr Llewellyn Smith's report, I was very much impressed with the unsatisfactory nature of the science teaching, especially in connection with experimental science. Young boys were introduced to difficult branches of the subject, and facts the bearing of which was imperfectly understood were committed to memory to meet the exigencies of grant-earning examinations. The recent introduction of courses in experimental science in which the work is almost entirely practical, and includes useful exercises in elementary mensuration, weighings and elementary mechanics, has been attended with the best results. Boys and girls take the greatest possible interest in this work, and when the exercises are arranged in a systematic manner it forms a valuable introduction to other branches of physical science.

In the teaching of chemistry radical changes have also been

introduced. Qualitative analysis, which has always been the bane of practical chemistry teaching, is now taking its proper position in the courses of instruction in this subject. In badly-equipped laboratories, where thirty or forty boys were taken by one master, it was the only kind of practical work possible. The necessary appliances consisted almost entirely of test tubes and bottles of reagents; and, moreover, grants were awarded on the results of examinations in this subject. A scheme of work including the investigation of bodies, the preparation of gases, etc., and the general introduction of quantitative exercises, is only possible where the laboratory is well equipped, and, which is a matter of the greatest importance, where there is an adequate teaching staff, so that not more than twenty boys do practical work together under one master.

In a few cases there is a tendency to cling to old methods of practical work, but the more rational kind of instruction is rapidly gaining ground, and the teaching in the lecture-room and laboratory is no longer divorced as in the days of qualitative analysis. The science masters and mistresses generally appreciate the change as much as the boys and girls.

The equipment of science lecture-rooms supplied with adequate apparatus has rendered possible the proper illustration of science lectures. Under the old conditions, where an ordinary class-room usually served the purpose, there was a natural tendency to dispense with experiments, their place being taken by diagrams on the blackboard or the descriptions of them in text-books. The appointment of additional science masters has had a marked effect on the improvement in this direction. The preparation of the experiments for a lecture should take as long as the delivery of the lecture itself, and it is imperative that a lecture-room with proper appliances should be set apart for work of this kind, and that the staff should be adequate.

In the county of London, as the result of liberal grants made for the equipment of science lecture-rooms and labora-

tories in secondary schools, a very great change has been effected in the practical nature of teaching. To give some idea of the influence so exerted I may perhaps be allowed to give some statistics which were obtained in this connection, following on the award of grants for this purpose.

	1893–4	1894–5	1895–6
Percentage of those receiving theoretical instruction in physics taking practical work in this subject	17·1	26·2	66·8
Percentage of those receiving theoretical instruction in chemistry taking practical work in this subject	31·7	43·7	58·1

The improvement indicated in this table has continued to the present time, so that at present there is very little theoretical instruction given in public secondary schools in London which is not definitely associated with suitable practical work.

Here then we see how gladly teachers avail themselves of opportunities of making science instruction more practical, and consequently more rational. In this they have been aided in every possible way by the very enlightened and generous action of the Science and Art Department in connection with what are termed schools of science, in which, so far at any rate as the first and second years' courses of instruction are concerned, great latitude is permitted to the teachers in drawing up schemes of study suitable to their schools, provided they come within the fundamental requirements of the regulations with regard to these schools.

In a syllabus which has been drawn up by a Committee of the Incorporated Association of Head Masters, a very satisfactory and rational scheme of work on elementary science has been produced. In submitting this scheme to teachers the Committee say:

"It is not intended that the teaching should be limited, either to the experiments here given or to the order in which the different subjects are stated. It is hoped that these experiments will be sufficient to indicate the lines on which the teaching should be based, and to assist the teacher in inventing others."

It would be a great misfortune if the teaching became in any way stereotyped, and of this there is always a danger in following a fairly detailed syllabus. There are splendid opportunities, opportunities of which many workers on these lines have already availed themselves for continual research on the part of the teacher in devising other simple and ingenious experiments in illustration of the various points. The great object throughout the course is to let the pupil, as far as possible, find out things for himself, make his own observations, and draw his own conclusions, following on from step to step in a logical order.

Of the value of physical science for the purpose of this training there can be no possible doubt. Writers on education are practically unanimously in favour of it. Mr Holman, in *An Introduction to Education*, says:

"Physical science subjects are not only of high disciplinary value from the nutritive point of view, but also from the point of view of pure exercise. For in dealing with pure, as opposed to practical and applied science, we have for the most part to do chiefly with the rational elements of experience—with general truths and principles. The mind is constantly exercised in that which is for mind only—the meaning or interpretation of experiences. And the discipline thus obtained is particularly valuable, because it is in such work that the mind gains the power and habit of fully and accurately receiving and responding to stimuli, of judging relations rightly, and of making those universal judgments about phenomena which, when properly expressed, we call laws or principles."

The child as far as possible is to become a discoverer; he

is to have what Pestalozzi called "the sacred right of discovery." We all know what a delight it is to a child to discover how to do things, and what an intense fascination there is in working out problems. The boy to whom the learning of definitions and rules is intolerably irksome, becomes interested directly there is something to work out, something to discover, using these definitions and rules as data. Do not we all remember how we slaved away at the propositions of Euclid, longing for the end of the lesson, but how we would willingly stay up half the night trying to work out interesting problems on them? This is one of the most powerful arguments in favour of this method of science teaching, that under proper conditions the teachers can awaken the greatest interest in the pupil by its means, and this interest should be maintained at all costs. Without it the best teaching is of little avail. The child must do its own part, you cannot do it for him. Teaching a child who is uninterested is like forcing food down the throat of an invalid who has no appetite. The food will do no good, because there will not be the necessary flow of secretions and other adjuncts to the successful carrying on of the digestive processes. This simile may be carried still further. In the case of people suffering from chronic dyspepsia there are certain preparations equivalent to the digestive secretions which are added to the food in order to digest or partly digest it outside the body, and these people are kept alive who otherwise would, and probably ought to, die. The result is, however, that if these processes are carried on for any length of time the secreting glands, having no work to do, degenerate and become functionless.

It is just the same in educational processes: the child must digest the food himself, it must not be digested for him by the teacher. As sure as children are nourished on peptonised information, the powers which ought to be developed and strengthened by its means will degenerate and become functionless, the child will lose all power of originating, all

power of thinking for himself. He will become an automaton instead of a living organism. Of course, it would be foolish to dogmatise as to how much help should be given to children. It depends upon the part of the subject, the amount of time that can be obtained for practical work, the nature of the equipment, and many other things. All that can be asked is to let the child do as much as possible for himself; you want to make him intelligent, capable and resourceful, and this can only be done by suitable mental training. This point is very well put by Froebel in speaking of the training of young children. He says:

"Do not send it away ungently, do not drive it from you: be not impatient of its questions, its continual questioning: with every cross repelling word you destroy a bud, a shoot of its life-tree. But do not answer in words, where it can answer itself without your word. As soon as, and as far as, they have strength and experience, give them the conditions of the question, and let them make out the answer from their own knowledge."

Of course, to carry out this effectively you must have small classes. With large classes it is such a terrible temptation to give the information instead of putting the child in the way of getting it for himself; it is so much less trouble.

In a charming book, published at the beginning of this century, and now, unfortunately, out of print, by Maria and R. L. Edgeworth, on *Practical Education*, some very interesting instances are given of the facility with which children investigate problems for themselves if properly trained. Here is a delightful example:

"A boy of nine finds a kind of rainbow on the floor. He calls his sister to see, and wonders how it came there. The sun shines brightly through the window. The boy moves several things upon which the light falls, saying, 'This is not it. Nor this.' At last, when he moves a tumbler of water, the rainbow vanishes. There are some violets in the tumbler, which he

thinks may explain the colours on the floor. But when the violets are removed the colours remain. Then he thinks it may be the water. He empties the glass. The colours remain, but they are fainter. This leads him to suppose that the water and the glass together make the rainbow. 'But,' he adds, 'there is no glass in the sky, yet there is a rainbow, so that I think the water alone would do, if we could but hold it together without the glass.' He then pours the water slowly out of the tumbler into a basin, which he places in the sunlight, and sees the colours on the floor twinkling behind the water as it falls."

How easy it is to lead children on in this way, by making use of their natural activities. What sources of information can be imparted to the child as a result of its own reasonings! And, moreover, the child makes such information for ever its own, because it forms part of a chain, and is connected so indissolubly with its previous experiences. And what a sure basis such information becomes for future reasonings! Thus, step by step, the intelligence develops, information is assimilated, the child becomes stronger and stronger, and all along the line it is making use of its natural mental energy. Pestalozzi says:

"I believe that the first development of thought in the child is very much disturbed by a wordy system of teaching, which is not adapted either to his faculties or the circumstances of his life. According to my experience, success depends upon whether what is taught to children commends itself to them as true through being closely connected with their own personal observation and experience." And again:

"So the sole instruction given to the human being consists merely in the art of giving a helping hand to this natural tendency towards its proper development; and this art consists essentially in the means of putting the child's impressions in connexion and harmony with the precise degree of development the child has reached. There must be then in the impressions to be given him by instruction, a regular grada-

tion; and the beginning and the progress of his various knowledges must exactly correspond with the beginning and increase in his powers as they are developed."

Assimilated information is as valuable as undigested, unconnected information is deleterious. Rousseau was never tired of insisting upon the importance of this. "When the understanding," he says, "makes things its own before they are committed to memory, whatever it afterwards draws forth belongs to it; but if the memory is burdened with what the understanding knows nothing about, we are in danger of bringing from it things which the understanding declines to acknowledge."

These "knowledge lumps," as Thring called them, are of no real value to the boy or girl, and directly the memory alone has to bear the burden with no reference whatever to the reasoning faculty the result is disastrous, as is shown by the remarkable answers too often obtained in examinations.

If the rational teaching of science is to be followed in schools, it means, of course, more work, though intensely interesting work, for the teacher.

Professor Miall said recently, at a conference of teachers: "Many a teacher has said to me 'I cannot inquire: I never made an inquiry in my life. Moreover, I have not time to inquire. As soon as I get out of school I have papers to mark, and, as soon as my papers are marked, I must enjoy myself and recreate my mind.' The only answer that one can make is, 'If that is really your condition, if it is impossible for you yourself to inquire, if you never do inquire, you are not fit to teach. Your lamp has gone out.'"

So much, then, for the teaching of elementary experimental science. The same principles apply to the teaching of botany in schools. It should be used as an instrument of education rather than for purposes of information. There are great possibilities in botany, but probably there is no subject which is so badly taught. I have had some melancholy experiences in

inspecting the methods used in teaching it to young children especially. The dreary text-book botany lessons are as worthless as practical rational lessons are valuable.

Professor Miall, who has given very special attention to rational methods of teaching botany, strongly advocates this subject for object lessons for children from the ages of 8—12, and in doing so lays down certain maxims to be followed:

(1) No Latin or Greek technical terms.

(2) No lectures or information lessons.

(3) No book to be produced in class.

(4) The object lesson should always be founded on the actual object.

(5) Never tell the children anything they can find out for themselves.

From 12 to 15 or 16, Professor Miall would hand over the children, as far as science teaching is concerned, to the kind of instruction involved in a good general course of elementary experimental science as being the best possible teaching of a formative character to follow on a suitable course of object lessons on botany or natural history.

Where botany is taken systematically in schools as the main science subject he would make great claims on the time-table. He says:

"Here may I just make a remark upon the subject of time in the teaching of botany, because, though many things are denied to the teacher of botany, which are necessary to his efficiency, I think the most cruel denial to which he is subject is the denial of adequate time. The practice has sprung up of considering that about an hour a week is a good allowance for a particular branch of science, especially for botany, which is not held, altogether, I think, in the highest esteem. An hour or two a week in botany is not an unusual allowance. Now any such allowance as that seems to me utterly nugatory. You might just as well cross the subject out as allow an hour a week

to it. It is part of a miserable system which pervades the school course in general, and which results from our great anxiety to bring in a number of subjects, and our unwillingness, when a number of incompatible things are offered to us, to make a selection among them; and so the whole school course is ruined.....That is one of the reforms which is most pressing, and, to put my views of this subject in a practical form, if I were a schoolmaster or were drawing up a time table for a school, I should be inclined to take some such practical step as this. Every important subject which is taught at all should, as a rule, come round pretty nearly every day. One does not want to be over-precise, and therefore I say pretty nearly every day. But a lesson once or twice every week in an important subject does not count. The results are not permanent. Unless it comes pretty nearly every day, it does not very much signify. And the course relating to a particular subject should last, in my opinion, at least a year or two. If it does not come round pretty nearly every day, and for a year or two, the probability is that no permanent impression is made."

Here we are treading on very dangerous ground—the time to be given to rational science teaching; but it is a difficulty which will solve itself. During the past few years this kind of teaching has been on its trial, and has come out of it splendidly. It has steadily taken a more and more prominent position in public favour. It has come to stay. Even now, however, the enormous possibilities of associating with it instruction in other subjects by the removal of some of those unnecessary and baneful partitions, by which instruction in various branches of study is separated into water-tight compartments, is only imperfectly grasped. But we must not hurry matters. Vast progress has been made during these later years of the nineteenth century in this direction, and the old system is absolutely irrevocably doomed: nothing can resuscitate it. The wonder is that this new method was not introduced long years ago. But, then, this tardy introduction of reforms, especially in educa-

tional matters, is essentially English. We move very slowly, but when we have moved there is no turning back. As a matter of fact, the principles now advocated were those advanced by Pestalozzi and his followers a century ago. There is nothing really new. We are very insular as a people, and in nothing more so than in our want of interest in, and ignorance of, the history of educational movements on the Continent.

There is not time in a short lecture of this kind to more than touch upon the subject of the "Training of Teachers." Whatever difficulties there may be in the teaching of ordinary class subjects by those who have not had adequate training, they are increased tenfold when we have to deal with the rational teaching of science. Where a dozen teachers can successfully impart information, not one can command that necessary restraint and give that wise guidance which will enable children to discover for themselves. In the great educational reforms, which we shall see introduced in all probability during the next few years, much attention will undoubtedly be given to an improvement in the provision for the training of primary and secondary teachers, and when this is done, there will be little to fear for the future of rational science teaching. And I venture to think that when the history of educational movements in England during the nineteenth century is written, a very prominent place will be allotted to the reforms instituted during the latter part of the century in science teaching in schools.

CHAPTER VIII.

INDUSTRIAL EDUCATION IN THE NINETEENTH CENTURY.

BY

SIR PHILIP MAGNUS.

THE question of the kind of education best suited to industrial and professional pursuits, and how to provide it, has occupied a large share of public attention during the last twenty years. The problem is not, however, by any means a new one, and during the early years of the century it was carefully and frequently considered by many competent and zealous thinkers, and not a few attempts were made to solve it.

In the present lecture I hope to be able to trace the connection between those early endeavours and recent more or less successful efforts, and to give, within the time at my disposal, even a brief outline of the progress of industrial teaching during the nineteenth century; I must necessarily pass in very rapid review many important incidents, and must be content if I am able to bring into prominence some only of the

principal events which have left their influence on the history of the movement, and have helped to shape our present schemes and methods of instruction.

We cannot consider the problem of industrial education altogether apart from that of education generally, nor without reference to the relations between employer and employed, and to many other matters affecting the life and work of the labouring classes.

It is difficult for us to realise the social and intellectual condition of the great mass of the population at the beginning of the present century. Wages were low, commodities were dear, the hours of labour were long, and the standard of living was altogether different from what it is at present. The first Factory Act passed in 1802 reduced the hours of labour to twelve (exclusive of meal-time), and provided safeguards to mitigate the hardships of apprenticeship. There was no provision for the general education of the people, and the century was more than two-thirds spent before the right of children to receive the rudiments of education was recognised as an obligation on the part of the State. The lot of young children who were sent to work wholly untaught was aggravated by the growth of the factory system, consequent on the introduction of machinery into mills; and the dislocation of labour and the crowding of workpeople into the towns led to very deplorable conditions of existence. The old laws of apprenticeship were still in operation, but the relations of employer and employed were undergoing a rapid change. This was particularly the case in the Textile Trades, in which the inventions of Arkwright, Crompton, Cartwright and others had produced a revolution in the methods of production, and had destroyed the *quasi* family life which the apprentice formerly enjoyed under his master. The unrestricted use of untrained child labour was the crying evil of the first years of the century, and elicited powerful protests from the great reformers of that time; but it was not till some years later that their efforts bore fruit.

Wordsworth in his *Excursion*, published 1814, pitifully describes the condition of the factory employed child:

> "The boy, where'er he turns,
> Is still a prisoner;...
> Behold him—in the school
> Of his attainments? No; but with the air
> Fanning his temples under heaven's blue arch.
> His raiment, whitened o'er with cotton flakes
> Or locks of wool, announces whence he comes.
> Creeping his gait and cowering, his lip pale,
> And scarcely could you fancy that a gleam
> Could break from out those languid eyes."

and so on; and then he goes on to say:

> "Can hope look forward to a manhood raised
> On such foundations?"

The whole of the eighth book of the *Excursion* is interesting as a description of the condition of factory children of this time, and is a fervent protest against the neglect and hardships to which they were then subjected. Elizabeth Barrett Browning, a few years later, gave a still more pitiful expression to the cry of the children:

> "For oh!" say the children, "we are weary
> And we cannot run or leap;
> If we cared for any meadows, it were merely
> To drop down in them and sleep.
> . . . . . .
> For all day we drag our burden tiring
> Through the coal-dark underground:
> Or, all day, we drive the wheels of iron
> In the factories, round and round."

It stands to the honour of Sir Robert Peel that he was the first to bring Parliamentary legislation to the aid of the apprentice. Under Peel's Act of 1802 the hours of apprenticeship were shortened, night work was abolished, the instruction of children employed in factories was made obligatory, and Inspectors were appointed to see that the law was kept. This was the first Factory Act, and under it the evils of apprenticeship

as affecting factory children, were, in some measure, alleviated. At this time workpeople were still legally prevented from combining with a view of improving their position. In 1799 a Bill was passed to prevent "unlawful combination of workmen," a law which practically placed the working classes at the mercy of their employers. In 1806 journeymen compositors employed by time were prosecuted for taking part in a strike; and it was not till 1824–5 that the Combination Laws, which pressed so heavily upon the working classes, were repealed. The only instruction available at this time for the bulk of the people was that given in the Sunday Schools and the Parochial Charity Schools, where the teaching was limited in quantity and poor in quality. Two-thirds of the population grew up without being able to write their own names. Moreover, the heavy Paper Duty imposed in 1711 went a long way to counteract the benefits conferred by printing; and a tax on newspapers of 4*d.* per copy effectually prevented a wide circulation.

Very early in the century a twofold effort was made to improve the condition of the working classes by providing some kind of teaching for children and adults. These two movements were closely connected, although they developed on different lines. To the one may be ascribed the origin of the present system of elementary education, and to the other may be traced the beginning of our elaborate machinery for evening technical education.

There was no lack at this time of earnest, enthusiastic men who deplored the ignorance in which the mass of the population was immersed, and who looked to education as the surest means of increasing the happiness of the working classes, of lessening crime, and of promoting the prosperity and well-being of the nation. John Stuart Mill in his *Autobiography* tells us that his father, James Mill, "felt as if all would be gained if the whole population were taught to read, if all sorts of opinions were allowed to be addressed to them by word and in writing, and if by means of the suffrage they could nominate a legisla-

ture to give effect to the opinions they adopted[1]." The younger Mill lived to see some of his father's aspirations realised, but he was less hopeful than his father as to the improving effect of any change of circumstance on human nature.

Sir Joshua Fitch, in his little work entitled *Educational Aims and Methods*, says, "The 18th century was not distinguished in our own country, at least, by any important educational enterprise." No historian will be able to cast that reproach on its successor. The two names which stand prominently forward at the commencement of the century, in connection with the history of popular education, are Dr Andrew Bell and Joseph Lancaster. It was while in India that Bell, owing to the want of a sufficient number of teachers, was reduced to invent what has since been known as the monitorial system, a device for utilising the older children to instruct the younger, which was an important step in school organisation. In the year 1797 he published a pamphlet describing the Madras system of setting pupils to teach each other. He himself was so satisfied with the results of his experiment that he said, "I think I have made great progress and almost wrought a complete change in the morals and character of a generation of boys." This system, which would seem now-a-days to have little to recommend it, was not then regarded as a mere makeshift, but as a method of school management of permanent and real value; indeed, as the best possible means of organising instruction in all schools. Although Bell's pamphlet was published before the close of the 18th century, he himself did not become a public educator in England till a later date.

Meanwhile Joseph Lancaster, the son of a Chelsea pensioner, who had displayed from earliest youth great enthusiasm in the cause of Education and Religion, was preparing the way for the establishment of a system of schools for the people.

[1] *Autobiography*, J. S. Mill, p. 106.

In 1798 he hired a large room in the Borough Road, and announced that all who would might send their children to receive free instruction. The want came with the man, for several circumstances combined at that time to create a demand for education, and Lancaster's invitation met with a fuller response than he had probably anticipated. The success of his efforts aroused unexpected interest in the subject. In 1805 George III sent for him to explain his methods, and was gratified to learn that the system Lancaster had adopted owed its success to *quasi* military methods. Lancaster's efforts led to the formation in 1808 of the Royal Lancastrian Association, on the committee of which were James Mill, Henry Brougham and Samuel Rogers. In 1813 the West London Lancastrian Society was started. It took for its motto "Schools for All." Francis Place, the Radical tailor, who was prominent in all the liberalising efforts of the early part of the century, was a member of this Society. It was in the same year, 1813, that the parent Society developed into the British and Foreign School Society, the well-known organisation for the establishment of Elementary Schools.

About this time Bell returned from India and started schools illustrating his Monitorial System as practised in Madras. As so often happens when rival systems are simultaneously advocated, the differences are brought into undue prominence, and vanish altogether when seen through the perspective of later years. But between the two systems there was a difference somewhat similar to that which distinguishes our Board Schools from our Voluntary Schools. The teaching of religion formed a more essential part of Bell's methods, and his educational ambition was more limited. Froude has told us that "the Ten Commandments and a handicraft make a good and wholesome equipment to commence life with," and the partisans of Bell felt that, whilst the teaching of religion was essential to the elementary training of children, the dangers of over-education had even then to be guarded against. Indeed,

he protected himself by saying, that "it is not proposed to educate the poor in an expensive manner." In 1811, as the result of Bell's efforts, the "National Society for the Education of the Poor in the principles of the Established Church" was founded, and we owe it to these two rival Societies, differing as to their theories of education, that the possibilities of elementary instruction have been brought within the reach of the children of the poorest classes. It is interesting to note that whilst Bell and his Monitorial System are now almost forgotten, and Pestalozzi stands out as the father of modern pedagogy, it is recorded of Bell that, after a visit to Pestalozzi at Yverdun, he remarked: "In another twelve years mutual instruction will be adopted by the whole world and Pestalozzi's method will be forgotten[1]." The schools established by these two Societies, unassisted by State aid, but supplemented by Sunday Schools, gave to the children of a large number of poor people the rudiments of primary education. The instruction thus supplied was necessarily of a most elementary kind, and even that did not reach all classes. We learn, however, from the biographies of many who subsequently rose to greatness, that they owed their advancement and success to the advantages they derived from the education provided in the National and Church Schools. These men were amongst the most earnest advocates of National Education, and the success they achieved induced parents to realise the value of providing their children with the rudiments of instruction.

Simultaneously with these efforts, on the part of philanthropic individuals and religious bodies, to secure for the rising generation some measure of elementary education, endeavours were being made to provide adult workmen with a knowledge of those facts and principles of science which underlay the work in which they were engaged. Already, in the early part of the century, steam-power was being applied to

[1] *Educational Reformers*, Quick, p. 352.

machinery and locomotion. The great revolution in productive industry which is the distinguishing factor of the century had commenced. The master minds of all countries were occupied in advancing physical science, and new methods were in process of discovery which were destined to multiply the productiveness of Nature. It was a time when such improvements in production were much needed. The belief was growing that population was increasing more rapidly than the means of subsistence. Communication between distant lands was slow, and each country depended almost entirely upon its own resources for its food supply. England was not then united by rapid steamships, as it now is, with the great producing countries of the world, and the means had not then been discovered of bringing the products of other lands within reach of our own working classes. The population question, which was then anxiously considered by our philosophers and philanthropists as a matter of grave import, no longer troubles us. In 1801 the English language was spoken by about 20 million people, it is now spoken by over 100 million: but the rapid increase of population, which roused the fears and agitated so acutely the thoughts of Bentham and Malthus gives us happily far less concern. In his *Life of Francis Place*, Mr Graham Wallas truly says: "It is difficult at the present time to appreciate with anything like justice the fears of those who studied the population question at the beginning of the century." That is so, but the discoveries of science have changed the conditions of the problem. It is no longer national but universal, and the question of provision is reduced to one of distribution. There is no fear that the world's resources will fail; what we have to consider are the means of bringing them within reach of those who want them. Francis Place grasped the truth that man's inventive power properly applied would add indefinitely to the earth's products. His phrase was:—"Machinery should be allowed to beat population in the race." Happily it has done so, and the productiveness of

science has dispelled the fears of Malthus and of Mill as to the unproductiveness of Nature.

The possibilities of science in helping to restore equilibrium between population and production were clearly foreseen by many active workers in the early part of the century; and hence their keen desire to diffuse as widely as possible scientific knowledge. They realised the fact that the changing conditions of industry required that men should not be permitted to degenerate into machines, that those who assisted in the work of production should know something of its processes, that the brain power of the community should be utilised for the well-being of the nation, and that a knowledge of what scientific discovery could effect should be made generally accessible, and particularly among those who were daily engaged in work that illustrated it.

Ideas such as these filled the minds of many practical educationalists in the early part of our century.

Prominent among these was Dr George Birkbeck. Born in 1776 of well-to-do Quaker parents in the quiet market-town of Settle, Yorkshire, George Birkbeck, after receiving a sound general education, chose the medical profession as his career, and studied successively under Dr Garnett and Mr Logan, and afterwards at the Royal Medical Society of Edinburgh. Later on he became a student of the University, and after attending the lectures of Steward, Rutherford and others, he graduated in 1799 as Doctor of Medicine. Among his fellow-students were Walter Scott, Francis Jeffrey, Sydney Smith, and Henry Brougham. At the age of 23, Birkbeck was appointed Professor of Physics at a new Institution at Glasgow, founded under the will of Mr John Anderson, and still known as the Andersonian College. It was in the year 1800 that Birkbeck, wanting some apparatus made to illustrate his lectures, went to a tinman's shop in Glasgow, where he was so much struck with the intelligence and greed for knowledge shown by the workmen, that he decided to admit them to his lectures, and

afterwards arranged a course on Physical Science expressly adapted to meet the wants of mechanics.

In his Prospectus for the Session, carefully prepared at his Yorkshire home, he says: "I shall deliver a series of Lectures upon the mechanical properties of solid and fluid bodies, abounding with experiments and conducted with the greatest simplicity of expression and familiarity of illustration, solely for persons engaged in the practical exercise of mechanical arts," and he goes on to say "that greater satisfaction in the execution of machinery must be experienced when the uses to which it may be applied, and the principles upon which it operates, are well understood, than when the manual part alone is known, the artist remaining entirely ignorant of everything besides[1]." The aim and method of Technical Education could not have been more happily expressed.

The Lectures proved both attractive and useful, and Birkbeck was thoroughly satisfied with the results of his experiment. In the year 1804 he left Glasgow, and after lecturing in Birmingham, Liverpool and Hull, settled in London, where he began to practise as a physician. But his interest in education was undiminished, and the Institute in London which still bears his name, and with which for so many years he was usefully associated, is typical of others, which largely through his help and influence were established in different parts of the country.

Birmingham claims the honour of being the birthplace of the Mechanics Institute, but in 1817 a so-called "Mechanical Institution" was established in London. It had but a short life, but it prepared the way for the London Mechanics Institution, which in the year 1824 was formally opened in temporary premises in Monkwell Street, London Wall. In his efforts to provide elementary scientific instruction for the working classes Birkbeck was supported by Brougham, Place, and Robertson,

[1] *George Birkbeck, the Pioneer of Popular Education*, by S. G. Godard, 1884.

and by other indefatigable workers in the cause of popular education. Among those who contributed money towards the erection of a suitable building for the accommodation of the students who attended the lectures, we find the familiar names of Wilberforce, Gilchrist, Mill, Richards, Grote, Bentham, Hobhouse, and Burdett. Huskisson endeavoured to obtain some assistance from the State for a work which, in one of his speeches, he describes as "likely to be attended with beneficial results both to artisans and to the public, provided it be directed to the teaching of those branches of science as will be of use to the mechanics and artisans in the exercise of their respective trades[1]." His efforts were unsuccessful, but so great was the success of the movement that between twelve and thirteen hundred workmen, paying one pound each, entered their names for the several courses of lectures, "crowding," we are told, "from great distances in the worst weather, and after the toils of the day were over, to slake their thirst of knowledge"; and it was then predicted that this desire for knowledge would "assuredly prove the source of improvements in the next age, calculated to throw all that has yet been witnessed into the shade[2]." Some of the most enthusiastic supporters of popular education still hesitated to give more than a guarded expression to their belief in the advantages of bringing scientific knowledge within reach of all classes of the community; and this is scarcely to be wondered at, when we read in the *St James's Chronicle* of May 1825, with reference to Birkbeck's scheme, that suggestions "more completely adapted to the destruction of this Empire could not have been invented by the author of evil himself[3]." It is unnecessary that I should tell the story in all its details of the growth and development of the School now known as the London Birkbeck Institute. It has passed through many

[1] Godard, p. 67.

[2] *On the Scientific Education of Operative Mechanics*, by Lord Brougham, Edinburgh, 1824, p. 20.

[3] Godard, p. 75.

vicissitudes. It has been more than once on the point of failure, but throughout its history of 75 years friends rallied round it at critical moments. It now forms part of the City Polytechnic. Its aims and objects are very similar to those of its first founders, but the training it affords is far more liberal than could have been anticipated by those who laboured to create it.

About this time a very successful attempt was made to establish in Edinburgh an institution on the basis of the Andersonian School at Glasgow. The "Edinburgh School of Arts" was founded in 1821, with the object of imparting to the working classes a knowledge of scientific principles. The constitution of the Edinburgh School was somewhat different from that of the Mechanics Institution generally, the control and direction being left to a greater extent in the hands of the educated classes. Care was taken, however, that a certain proportion of master mechanics should always be upon the governing body so that no regulations might be made which would be in any degree hostile to the habits or feelings of the working classes.

The lectures were delivered by men of established ability. Dr Fyfe lectured on Chemistry and Mr Galbraith on Mechanics; and it may interest the Farriers' Company of London to know that a course of lectures was organised on Farriery and the Veterinary Art. Nasmyth, who was a student at the College from 1821 to 1826, calls it "our first Technical College."

In the notice of the opening of the School of Arts of Edinburgh, published in September 1821, occurs the following statement: "The great object of this Institution is to supply, at such an expense as a working tradesman can afford, instruction in the various branches of Science which are of practical application to mechanics in their several trades, so that they may the better comprehend the reason for each individual operation that passes through their hands, and have more certain rules to follow than the mere imitation of what they

have seen done by another. It is not intended to teach the trade of the carpenter, the mason, the dyer, or any other particular business; but there is no trade which does not depend, more or less, upon scientific principles; and to teach what they are, and to point out their practical application, will form the business of the establishment. He who unites a thorough knowledge of his art with that dexterity which practice and practice only can give, will be the most complete, and probably the most successful tradesman[1]."

It would be difficult to find a better definition of Technology than this, or a clearer expression of the aims and objects of technical instruction. Even our difficulties of to-day were anticipated eighty years ago; for we read in the article, from which I have already quoted, contributed by Lord Brougham to the *Edinburgh Review*, October 1824, that "The experience of the first year" of the working of the School of Arts, "and particularly the fact that the students were of no less than 48 different trades, convinced the Directors that the best plan was to limit the lectures to the general principles of those sciences which are of universal application to the arts, and not to attempt, as had at first been intended, teaching the principles of the arts in detail."

The first quarter of the century and particularly the years 1815—1825 was marked by the foundation of Mechanics Institutions in all parts of the country. There was scarcely a large town in England in which efforts were not made, and with singular success, to establish schools on the basis of the London Institute. They were founded in all the chief manufacturing towns, and the movement extended to Dublin and Cork, to Aberdeen, Hawick and Ayr. We read that Institutions "sprang up as if by magic," and that in "a short time temples of Science were reared in every corner of the land." In the year 1841 the total number of such Institutions was 220, of which about 36 were in the Metropolis and suburbs.

[1] Brougham, p. 14.

It was an interesting movement, resulting from the first general recognition of the interdependence of Industry and Science, and was favoured by the sense of repose and satisfaction that followed the termination of the Napoleonic wars. The movement, although of undoubted service to the cause of education, was somewhat premature, and looking back from the vantage ground of our present experience, it is not difficult to discern the reason why so many of these Institutions failed to fulfil the objects for which they were originally established. Writing of the Edinburgh School some years after its foundation Mr Nasmyth says: "In these days when so many of our so-called Mechanics Institutes are merely cheap reading clubs for the middle classes, and lectures are delivered for the most part merely for a pleasant evening's amusement, it seems to me that we have greatly departed from the original design with which Mechanics Institutions were founded." The history of most of these Institutions is very similar. Some of them, such as the Institutes of Manchester, Huddersfield and Leeds, kept alive long enough to be converted into Technical Schools. The Edinburgh School of Arts has developed into the Heriot Watt College. Others, however, led a languishing existence and degenerated into clubs, or changed the character of their work or ceased to exist. Very few succeeded to the extent expected by their founders, and yet their failure was in no way due to any fault in their conception, nor in their objects. It was due in the first place to the want of adequate funds, and secondly and equally to the absence among the workmen, whom they were intended to benefit, of the rudiments of primary education.

No public Institutions with such aims and objects could succeed without State aid. They depended entirely on voluntary support; and when their means failed they were compelled to sacrifice their ideals to their necessities. They consequently degenerated, as Nasmyth has pointed out, into cheap Reading Clubs for the middle classes, and places of literary entertainment. But, even if they had been adequately

endowed, or otherwise financially aided, their progress would have been seriously retarded by the fact that there did not exist at that time a body of artisans sufficiently educated to profit by the instruction. They were destined, therefore, to fall into the hands of the middle classes and of the more intelligent foremen and managers connected with the Engineering and Building Trades. Mr J. H. Reynolds of Manchester, in a letter he has kindly sent me on the origin of the Manchester Mechanics Institution, says: "It was simply impossible, except to a select few, to convey any knowledge of the principles of Science as applied to industry, to a body of workers a very great number of whom had never before been to school. I have myself, when a young man, taught reading, writing and arithmetic to working-class youths as a regular thing in the Sunday School in Manchester. In 1879 I became the Secretary of the Manchester Mechanics Institution, and I well remember the feeling of despair which came over me when I realised the real condition of affairs. There were a boys' and a girls' day school, and a number of evening classes, all in a moribund condition, the place heavily in debt, a governing body of directors without money, elected by the members and students. I could see no way open; when one day I got the Programme of the City and Guilds of London Institute establishing examinations of a distinctly industrial and technical character, and I at once induced the directors to establish classes to meet the demands of these examinations. I have a vivid recollection of your visit to me, and of the hope with which you inspired me, when you said that the City Guilds Institute would grant immediate aid if certain things were done. This is nearly 20 years ago and the fruit of it all is seen in the finest building for a Technical School in England." I have ventured to quote this extract from a long and interesting letter, for although it anticipates to some extent our history, it shows very clearly the causes that prevented the Mechanics Institutions from fulfilling the expectations of their founders. But

subsequent experience points to other causes for their partial failure. The methods of technological instruction were not then understood. The intentions of the directors were sound, but the teaching was faulty. Courses of lectures, even when illustrated by experiments, and conducted with simple apparatus hastily put together, failed to supply artisans with the teaching they required. Lord Brougham and those who worked with him had not recognised this fact. He tells us: "Many of the most important experiments may be shown with very cheap and simple machinery; and a skilful lecturer may make great progress in teaching his pupils, and enabling them to overcome the difficulties that stopt them in their private studies with hardly any experiments at all[1]."

This is partly true in teaching children; but the passage quoted shows that the writer had not grasped the problem of technical education, nor realized the appropriate method of instruction in dealing with adult workmen, or trade apprentices. It took nearly a century to discover the kind of lessons best fitted for mechanics engaged in different trades; and the utmost that can be said for the Mechanics Institutions is that they afforded, during many years of educational obscurity, a glimmer of light which enabled a few of the more gifted of the working classes to grope after the knowledge they required.

Even in this brief survey of the history of Industrial Teaching, I must not omit to refer to the influence exercised by the University and King's Colleges of London, now merged into the London University, in meeting the demand for a higher general and professional education which, some little time before the accession of our Queen began to be realised. Birkbeck took an active part in the foundation of University College, which was opened in October 1828. "Unless some advance," he said, "was made by those who were called the superior classes, they would not much longer continue superior.

[1] Brougham, p. 23.

To find their Carpenters, their Bricklayers, and their Shoemakers with greater knowledge than they themselves possessed would be a strange and dangerous solecism[1]." This was said when the future of Mechanics Institutions seemed assured. The conditions of graduation in the old University of London, with which the two Colleges were at first so closely and usefully associated, indicated a new educational departure, emphasising the importance to all students of some knowledge of physical science. These Colleges, and later on the Owens College, Manchester, founded in 1851, gave for many years the only available professional education for Architects, Engineers and Chemists. Their schemes of instruction were not very definitely prepared with a view to technical pursuits; but the influence they exercised is a very potent factor in the subsequent development of the higher technical education.

The establishment in 1826 of the Society for the Diffusion of Useful Knowledge, of which Lord Brougham was President, gave a further impulse to popular education, by providing at a cheap rate a whole library of books on subjects of interest to the industrial classes. A few years later the *Penny Magazine* was started, and this was followed by the *Cyclopedia* edited by Charles Knight. These publications helped to disseminate some amount of knowledge among such of the working classes as were able to read, who were still a comparatively small proportion of the population.

In 1834, a very momentous event occurred in the history of education in this country. A grant of £20,000 was made by Parliament to the National and British School Societies. This was the first of the grants which have gone on continually increasing, involving the State more and more in the direction and control of the education of the people. It is interesting to note that the relation of the State to education did not grow out of any sense of obligation or duty to organise and

[1] Godard, p. 90.

direct a system of general instruction for the people, but arose rather from the necessity of safeguarding the public purse and of satisfying Parliament that the annual grants had been usefully expended. It was only very gradually that the Government was induced to take the initiative in suggesting courses of instruction and in controlling education; and even now, when so much has been accomplished, the State lags far behind the popular demand for guidance. At that time, however, and for some years to come, education was left almost entirely to voluntary effort both for its means and its methods.

The opening of the first Exhibition in 1851 is an event of primary importance in the history of industrial teaching, and cannot be dismissed without some comment. "It was," to quote the words of Sir Wemyss Reid, "the starting point in the modern history of English manufactures and arts[1]." It is not quite clear to whom is due the first conception of this great undertaking, which during the second half of the century has exercised so beneficent an influence, not only in England but throughout the whole civilised world, upon industrial progress. The name of the Prince Consort stands prominently forward, and with him will always be remembered Sir Henry Cole and Lord Playfair. In many ways the Exhibition of 1851 gave an impulse to the promotion of technical education. It afforded for the first time an opportunity of comparing the products of our shops and mills with those of other countries, and showed in strong relief the bearing of Art on manufactures, and the possibilities of improvements which might follow from the alliance of Industry with Science. It was a great object lesson from which we have never ceased to profit. But it was not so much the Exhibition itself as its consequences, which affected the progress of industrial education. The profit from the Exhibition amounted to £186,436. After much consultation this sum of money, supplemented by a Parliamentary grant of

[1] *Memoirs and Correspondence of Lord Playfair*, by Wemyss Reid, 1899.

£150,000 was invested in the purchase of the South Kensington estate, which has since been so closely associated with every important movement in connection with Science and Art instruction, and has now become the permanent home of the Royal College of Science, the Central Technical College and the University of London. In writing to Playfair in August 1851, the Prince Consort said: "I would buy that land and place on it an Institution embracing the four great sections of the Exhibition," and after going into considerable detail as to his scheme, he pointed out that it was "founded upon the presumed necessity of affording instruction to those engaged in the prosecution of arts and manufactures[1]." In this memorable document the late Prince Consort sounded the note of warning as to the superiority and advantages of foreign systems of education, which has not yet ceased to be heard. Very wisely, and with great prophetic insight, he said: "The nations most likely to afford a public recognition of this fact are those whose fuel and raw materials are chiefly derived from other lands, and who can therefore only carry on a successful competition by continually economising and perfecting production by the application of Science." He did not live to see the extent to which Switzerland and Germany have succeeded in becoming the commercial rivals of other countries enjoying greater natural advantages.

Consequent on the efforts of the Prince and of those who worked with him, and in accordance with his scheme to focus at South Kensington Institutions for industrial teaching, the Science and Art Department was formally constituted in March 1853. Cole was the first secretary for Art and Playfair the first secretary for Science. It cannot be denied that the Department which began work forty-seven years ago, and ceased to have a separate existence in March 1900, has fulfilled in many ways, and to a very great extent, the objects

[1] Wemyss Reid, p. 131.

for which it was established. It has fostered the growth of art teaching, and has spread some knowledge of science among the children and adult population of every town throughout the Kingdom. Although its methods may not always have been the best from an educational stand-point, its officers have endeavoured to profit by the criticism which has been freely bestowed upon it, and the widespread system of Technical Education, which is now so largely helping the commercial interests of this country, may certainly be regarded as the outcome of the early efforts of its founders.

After the close of the Exhibition of 1851 the Society of Arts, in whose Council the idea of the Exhibition is said to have originated, organised a series of lectures to draw attention to the lessons which it taught. Playfair delivered two of these lectures, and subsequently made a tour through Europe to learn the system of Technical Education as then developed in different countries. The results of his investigations formed the subject of an interesting lecture to the students of the School of Mines. To Lord Playfair is due our first authentic knowledge of the work of foreign schools, and his speeches and reports gave a great impulse to the study of foreign systems of education. In his diary Playfair says: "Having great faith in the education of public opinion, I began a crusade in favour of Technical Education. It was weary and dreary work. My voice sounded to myself as the voice of one preaching in the wilderness." The experience of others, a quarter of a century later, has not been very different. Nevertheless, it is consolatory to know that the vibrations of every voice, preaching in a good cause, are never really lost. They penetrate the wilderness, and by ways we cannot at the time discover produce some permanent effect. In the Board of Education Act, and in its consequences, which will be more fully realised ten years hence, we see the results of the efforts, during the last few decades, of many an eager worker in the field of Educational Reform.

Although as early as 1836 a grant of £1500 was made by the Government towards the establishment of a School of Design, it was not till after the Exhibition of 1851 that any systematic aid was given to the teaching of Science and Art. In a speech from the Throne at the opening of Parliament, November 1852, reference was made to "The advancement of the fine arts and of practical Science," and to a comprehensive scheme for the promotion of those objects, which resulted, as already stated, in the establishment in 1853 of the Department of Science and Art under the control of the Board of Trade. It remained under the Board of Trade till 1856, when it was transferred to the newly formed Education Department. In 1859 a system of grants in aid of Science and Art classes applicable to the whole country was approved; and, with some important changes, the system has remained in force until the present day.

The Department owed its existence to the early recognition of the fact, that manufacturing industry was destined to be more and more dependent upon the application of the discoveries of science and of scientific method to the processes of production. This fact was brought home to the minds of intelligent observers by the variety of products of different countries shown at the first Exhibition. What most struck our manufacturers was the absence of beauty and design which characterised the products of British industry, and from that time arose the belief in the saving influence of science and artistic skill.

If the Department, originally organised to assist industry, had restricted its efforts to the establishment in different parts of the country of schools for instruction in subjects cognate to the trades of the district, the history of education during the past half century would have been very different, and our commerce might have suffered less from foreign competition. It would seem, however, that the original purpose of the Department was partially lost sight of in the endeavour to

encourage, without reference to any organised system of instruction, a general knowledge of elementary scientific facts. A machinery was created, unknown in the educational system of any other country, for catching here and there a stray genius. It was described by Huxley as a "capacity-catching machine." It was cumbrous in its operations, and whilst it impeded the healthy growth of primary instruction, it helped by the very grants it distributed to postpone the organisation of a sound system of secondary education. Moreover, it left to voluntary effort the building up of a national scheme of distinctly technical instruction. There was, too, a detachment about the work, which is shown in its failure to recognise Literature and Language equally with Science and Art as a part of a liberal education whether primary or secondary. Through its Museums and its Art Schools the Department has undoubtedly helped industry; but looking back through the last fifty years, and comparing educational progress here and abroad, one cannot fail to be struck rather with what might have been than with what has already been accomplished. During the forty-seven years of the Department's existence, the outlook has never been so promising as now, when the Unity of Education has come to be recognised, and the organisation of its different branches under one Central authority is likely to be effected.

The dependence of industrial upon elementary education is so intimate that before referring to the causes which led to the establishment of technical schools in all parts of the country, some mention must be made of the great Educational Act, which will be for ever associated with the name of W. E. Forster. The year 1870 is a landmark in the history of Education in this country. Prior to 1870 although State Aid was given to a large number of elementary schools, primary education was almost entirely dependent upon voluntary effort. Forster's Act brought education within reach of every child in the land. The most remarkable feature perhaps in the

history of primary education in this country is the parallel development of our Board and Voluntary school systems. No more striking instance can be adduced of the practical good sense of the British people, and of the wisdom of the statesmen who guide the policy of the nation, than the fact that these two systems have continued to exist and to develop side by side,—a result which goes far to explain the absence in this country of that acute phase of the religious difficulty, which has caused so much political disturbance in other countries, where the one system or the other has been wholly suppressed.

To the Act of 1870 the industrial progress of the Nation during the last thirty years is largely due. Except on the foundations of elementary education no system of technical instruction can possibly be reared. The first generation of scholars had scarcely left the newly organised Board schools before it was discovered that the science classes of South Kensington failed to give that specialised teaching which our young artisans required. Something more, and something other than the instruction so provided was needed. And not only among the artisan population, but to an equal if not to a greater extent among those who were to become the leaders of industrial works, the want of a new kind of education was beginning to be felt. During the early years of the last quarter of our century a further advance was made in scientific discovery. The possibilities of Electricity began to be realised, and the influence of well-directed chemical research in the building up of new industries abroad was recognised by some of the most far-seeing of our scientific men. The agitation that precedes a renascence had begun. There was a feeling of uneasiness as to the value of the education given in our Board schools, in our secondary schools and Universities, and doubts were expressed as to whether it was as well adapted as it might be to the changed and changing needs of industrial life. Huxley and Arnold, both Government officers, realised the urgent necessity of a change and an advance, and each in his own

way cried aloud and spared not. The examination system as then conducted was not conducive to sound education. Whilst pleading for scientific instruction Huxley saw that much of what was called science teaching was practically useless. "If scientific education is to be dealt with as mere book work, it will be better not to attempt it." "If scientific training is to yield its most eminent results it must I repeat be made practical." "I want to see instruction in Elementary Science and in Art more thoroughly incorporated in the educational system." "At present it is being administered by driblets, as if it were a patent medicine, 'a few drops to be taken occasionally in a tea-spoon'." These are a few of the wailings of Huxley scattered through his numerous speeches and addresses. In one of his Essays he says: "I am strongly inclined to agree with some learned schoolmasters who say that in their experience the teaching of Science is all waste of time. As they teach it I have no doubt it is, but to teach it otherwise requires an amount of personal labour and a development of means and appliances which must strike horror and dismay into a man accustomed to mere book work[1]." Since these words were written the teaching has improved, but further changes are still needed to make the Science of our secondary schools a fuller preparation for professional and industrial life. Arnold's criticism of our methods was equally to the point. No one realised more fully than he the radical defects of our educational system. "The idea of Science," he tells us, "and scientific knowledge is wanting to our whole instruction alike," and Arnold used the term Science in its wider and more correct sense, not as mere information about the laws and facts of Nature. Huxley and Arnold approached the problem from different points of view, but in each was found that energising spirit of unrest to which we largely owe the educational advances of the last twenty years.

[1] *Science and Education.* Essays by T. H. Huxley. Macmillan, 1893.

It was in the early seventies that the Society of Arts made an endeavour to supplement the scrappy teaching of Science in the Government-aided Classes by instruction in the application of scientific principles to the practice of a few industries. The teaching of Technology, which is the distinguishing mark of Industrial Education, and has now established a firm footing in our schools, had its beginning in a very unpretentious scheme of the Society of Arts. Huxley as early as 1877 described it as "a system of instruction for persons employed in factories and workshops, who desired to extend and improve their knowledge of the theory and practice of their particular avocations." It was knowledge of this kind that artisans wanted and had hitherto been unable to obtain. The efforts of the Society were not attended with any large measure of success. There were no funds available for such teaching and the practical side of the instruction received little or no encouragement. Still the efforts of the Society gave the first stimulus to the spread of technological teaching in our industrial centres.

Of such teaching adapted to some few branches of the Building Trades, a practical example was found in the classes conducted by a small society of workmen known as the "Artisans Institute." I visited these classes early in the year 1880. They had their home in St Martin's Lane, not far from the present Offices of the Technical Education Board of the London County Council. The Rev. Henry Solly took an active part in their organisation, and the Institute was fortunate in securing, as one of its teachers, Mr C. T. Millis, the present Principal of the Borough Polytechnic. The teachers of these classes were trying to help their students, all of whom were artisans, to understand the theory of their work by showing them how a knowledge of the theory helped in the practice of their trade. In the Report of the Institute for the year 1879—1880 occur these words: "When instruction in the details connected with handicrafts is recommended, an off-hand reply is too generally given that the ordinary workshop is the proper school

for practice, and that a 'Science and Art school' affiliated to South Kensington suffices for instruction in principles. This view, however, is not borne out by the statements of skilled artisans. They assert, on the one hand, that the industrial education of apprentices in the workshop is, in these days, altogether neglected; that no one takes the trouble to teach them anything; that they can only pick up a very superficial knowledge of their trades; that they are often mere drudges, or are employed in but one branch of the business, so that if that branch ceases to be required—as often happens—they have nothing to fall back upon. On the other hand, it is asserted that a large proportion of imperfectly-educated lads or grown men who join science and art classes find that they are unable to apply in the workshop what is taught in the class-room, and only half understand what is taught, for want of seeing principles illustrated by their application to work." The concluding words of this extract show very clearly the want that was then felt, a want which the teaching of Technology has supplied. It is the function of the technical teacher to show the connection between principles and practice. This can only be done effectually when the teaching proceeds from the concrete to the abstract, from the practice of the workshop to the theory of the class-room. In the very humble efforts of the small band of teachers attached to the Artisans Institute I saw what seemed to me the special method of technological instruction—the method now adopted in the laboratories, workshops and lecture rooms of our great Polytechnic Institutes. The Institute had its recreative and educational sides, and, small as it was, it may be regarded as the forerunner of the large London Institutions, with which the name of Mr Quintin Hogg, as the founder and liberal supporter of the Regent Street Polytechnic, will always be associated. In 1883 the classes of the Artisans Institute were transferred to the Finsbury Technical College, of which I was then the acting Principal.

The partial success of the scheme of the Society of Arts to

encourage the teaching of technology as supplementary to that of elementary science, was a factor to be noted when the City Companies, about the year 1877, were considering the best means of establishing, under the direction of a joint Committee of representative members, a National System of Technical Education. Prior to their united action the Clothworkers' Company had sent abroad a few experts to enquire as to the best means of assisting the Textile Industries, and the reports which they received induced them to found, in connection with the Yorkshire College at Leeds, a Textile Department, which has proved of the greatest benefit to the manufacturers of Wool and Worsted goods in this country. It was during the winter of the same year, at the suggestion, I think, of Dr Wormell, that classes for artisans were started in the basement of the Cowper Street schools. Professor Armstrong, Dr Wormell and myself were among the first teachers, and out of this humble effort was developed, mainly by help of the Drapers' Company, the Finsbury Technical College.

The City and Guilds of London Institute was formally incorporated in 1880. What it has done for the advancement of Technical Education is generally known. It established the Finsbury Technical College and the Kennington School of Applied Art, and subsequently the Central Technical College, the first Institution of its kind in this country, comparable with the Technical High Schools of Germany and Switzerland. It took over from the Society of Arts its scheme of Technological Examinations, and developed them into a system of technological instruction applicable to all our principal trades and industries. This, very briefly, has been the work of the City Guilds Institute.

About this time there was considerable agitation in favour of Technical Education. Several of our industries were depressed, and there was a general feeling that our commercial interests were not being helped as it was hoped they might have been by our system of education. The agitation was

not without effect on the methods of instruction in all grades of schools from the Primary to the University. It was mainly owing to the City Guilds cooperating with the School Board for London that primary education was made more practical and useful, and that the subjects of Manual Training and Domestic Economy were introduced into the Government Code.

With the events of the last twenty years I must deal very briefly: they are within the memory of nearly all. Yet the period is the most important in the history of Industrial Education.

In 1881 a Royal Commission, of which I was a member, was appointed to enquire into the methods of Technical Instruction adopted in foreign countries. We visited France, Belgium, Holland, Germany, Austria, Switzerland and Italy, and we obtained important information from the United States. Our Report was published in 1884, and its recommendations gave a direction to subsequent legislation and voluntary effort. The measure conferring rating powers on local authorities for the purpose of Technical Instruction is the direct outcome of that work. No great progress was possible, however, until the new County and County Borough Councils had been created, and these would have been powerless to assist education, except to a very limited extent, if it had not been for the Local Taxation Act of 1890, which placed about £800,000 a year at their disposal for educational purposes.

The years 1870, 1880, 1890, and 1900 are noteworthy dates in the history of education in this country. They mark the creation of School Boards, the incorporation of the City and Guilds of London Institute, the passing of the Local Taxation Act, and the establishment of one central authority for elementary, secondary, and, as we are promised, technological instruction under a Board of Education.

During the last twenty years technical schools have been established in all our large towns, providing special instruction

for artisans engaged in every important industry. The instruction is based generally on the syllabus prepared by the City and Guilds of London Institute, which exercises some influence over the teaching, and annually examines the majority of the students. The Institute possesses a register of teachers in the several trade subjects included in its programme, and may be said to have at least partially succeeded in solving the difficult problem of adapting the teaching of science to the wants of artisans, and of differentiating practical trade teaching from the teaching of the practice of a trade. When opening an Exhibition of the Institute in 1899, the Lord President of the Council said: "For a period of twenty years this Institute has been working in connection with the Science and Art Department. The division of labour is that the Science and Art Department assists in providing certain branches of scientific and artistic teaching, and the Institute supplements the work of the Science and Art Department by its practical and technical classes." These words best explain the present relation between the City and Guilds of London Institute and the Board of Education.

London has been fortunate in obtaining a large share of funds, which have been mainly employed in establishing Polytechnic Institutions. It has received considerable donations and annual subsidies from the City Guilds, and by a scheme of the Charity Commissioners a substantial portion of the City Parochial Funds, amounting, in addition to capital grants, to about £50,000 a year, is devoted to education. London has also received its proportionate share, nearly £200,000 a year, of the proceeds of the beer and spirit duties. This large sum is expended with care and judgment by the Technical Education Board of the County Council.

When one considers the advantages which are offered to workmen and apprentices in any of our newest Technical Schools, we recognise the immense progress that has been made since Birkbeck first lectured to his artisan audience in

Glasgow. It is not only that the teaching embraces new subjects never thought of as susceptible of educational treatment a century ago; it is not only that the instruction is given in palatial buildings fitted with adequate machinery and with every mechanical appliance for illustrating the lessons, but the methods of instruction are altogether new, designed not only to inform but to train, and to exhibit in a manner previously not thought of, the connection between practice and theory. Moreover, the exponents of technical instruction have exercised an influence on education generally which cannot be overlooked when its history during the last quarter of a century is fully written.

Comparing the condition of education now with what it was in the beginning of the century, the contrast is most marked. An advanced elementary education, in which Manual Training largely enters, is afforded absolutely free to every child in the realm. Facilities of secondary education by means of scholarships are within reach of nearly all who are fitted to profit by it. Technical and commercial instruction, adapted to the requirements of industrial classes, and to the different occupations in which they are engaged is provided by local authorities under the general direction of a Centralised Board; and University Education, including Engineering in its widest sense, is available for a large and increasing proportion of the young men and women of the country. Our system is not perfect, nor is it ever likely to be. There is no finality in education. Improvements in organisation and in method are still needed, and some are within reach. We are still far behind Germany, Switzerland and the United States in the provision of specialised University education for those who are to occupy the higher posts in professional and industrial pursuits, and much of our education still fails in its formative influence, in the building up of resourcefulness and useful aptitudes. But what has been accomplished would exceed the most sanguine hopes and expectations of those who laboured for reform in the

early years of our century. In the organisation of primary education the contrast between the years 1800 and 1900 is most marked. Nearly a hundred years ago, Wordsworth, from whom I have already quoted, uttered what then seemed to him a forlorn hope:—

> "O for the coming of that glorious time
> When, prizing knowledge as her noblest wealth
> And best protection, this Imperial Realm,
> While she exacts allegiance, shall admit
> An obligation, on her part, to *teach*
> Them who are born to serve her and obey;
> Binding herself by statute to secure
> For all the children whom her soil maintains
> The rudiments of letters.....so that none,
> However destitute, be left to droop
> By timely culture unsustained; or run
> Into a wild disorder; or be forced
> To drudge through weary life without the aid
> Of intellectual implements and tools."

Well! this vision of the Poet has been realised, and the allegiance this Imperial Realm exacts is paid more freely and more cheerfully by the people of to-day, helped by "intellectual implements and tools," than by the "tens of thousands uninformed," who, "bred to little pleasure in themselves," were "profitless to others."

NOTE. Definition of "Technical Instruction" given in the Technical Instruction Act, 1889.

"The expression 'technical instruction' shall mean instruction in the principles of science and art applicable to industries, and in the application of special branches of science and art to specific industries or employments. It shall not include teaching the practice of any trade or industry or employment, but, save as aforesaid, shall include instruction in the branches of science and art with respect to which grants are for the time being made by the Department of Science and Art, and any other form of instruction (including modern languages and commercial and agricultural subjects), which may for the time being be sanctioned by that Department by a minute laid before Parliament and made on the representation of a local authority that such a form of instruction is required by the circumstances of its district."

CHAPTER IX.

THE TRAINING OF TEACHERS.

BY

MISS E. P. HUGHES.

THE subject on which I have been asked to lecture is the training of teachers in England during the 19th century. An intelligent secondary teacher thus described our subject to me the other day. "The training of teachers is an ambiguous term, an educational heresy, and historically a failure." I grant at once it is an ambiguous term, therefore we must define it. It is a little difficult to know when a heresy ceases to be a heresy, but I think that we who believe profoundly in a scientific and philosophical training for all teachers are just ceasing to be regarded as heretics in England. There is already some evidence to prove that the training of teachers is not historically a failure.

It is necessary to define "training of teachers," because it is used in at least three different senses in England.

I. It may mean acquiring that professional knowledge and skill special to the work of teaching, and required only by teachers. This seems a logical use of the term, but it is not that which is most common in England.

II. It may mean, in addition, gaining what has been called "the stock in trade of a teacher,"—sound and fairly advanced knowledge of the subjects which he is going to teach.

III. It may also include gaining that liberal education which gives the intellectual ability wide knowledge and culture, which our English world is beginning to see must be owned by every really effective teacher. In our English elementary training colleges, and in American and other Normal colleges, "training" is used in this widest sense as including a liberal education,—or at any rate something like it,—knowledge of subjects, and professional knowledge and skill. In secondary training colleges in England, on the contrary, steps are usually taken to ensure that the students possess the required liberal education and subject knowledge before they enter a college, and the training course is usually limited to acquiring professional knowledge and skill.

Even with this narrower meaning there is still an ambiguity in the term. *All* experienced and effective teachers possess professional knowledge, i.e. know what other professional workers do not and need not know, and possess professional skill, i.e. can do what other professional workers can not do, and are, therefore, in one sense all trained teachers. I remember hearing Dr Abbott claim rightly to be a "trained teacher;" and he once said in public, "I gained my experience as a teacher at the expense of my pupils for the first two years." Some of us have probably required a far longer course of training at the expense of *our* pupils! Those of us who have been working and fighting for the training of teachers in England, mean by it, not only the possession of a certain quantity and kind of professional knowledge, and a certain amount of skill in teaching and governing, but that these should be obtained *before* the teacher begins his regular work, and under careful supervision and instruction. This is I think the narrowest and most exact meaning of the word "training of teachers," but I propose to use the term to-day in the wider sense, which includes liberal education and subject knowledge, and this for two reasons. First, this wider meaning is constantly used in England. Secondly, no satisfactory training in

the narrow sense can be given except on a solid substructure of liberal education and sound subject-knowledge. Until the nature of professional training is clearly understood, it is best to include in it that foundation on which alone it can be safely reared.

Our real problem is therefore,—What has been done during the last hundred years in England to prepare teachers, by education and training, for the work of teaching?

May I comment for one moment on the importance of the problem? I think we need to be reminded now-a-days that educational legislation and governing bodies are after all only arranging the *conditions* of education; it is we teachers alone who direct the *process*. Give us by all means good buildings, excellent apparatus, wise educational laws, and judicious governing bodies, but granted all these it is still of greater importance what we teachers are, and what we can do. Upon *us* rests the grave responsibility of being in some ways the most important factor in educational progress; and the most rapid and most thorough way of improving the education of a country is to improve *us*, its teachers. Let me emphasise this point by a few quotations. In 1839 Lord John Russell said, when discussing the improvement of education, "I say that the measure which should be first adopted is the establishment of a good normal school for teachers." In 1873 Professor Payne said, "The teacher is the very soul of the whole apparatus of means, and indeed the only positively indispensable element in it." In 1897 the Bishop of Hereford said, "Give me the training of teachers, and I count all other matters of secondary importance." The Royal Commission on secondary education, under the section "the professional education of teachers," has these words, "Educational reformers have long recognised that of all the improvements that can be made in schools, none are more important, none perhaps so important as those which tend to secure a supply of able and skilful teachers." They further suggested three methods

to obtain that supply—adding to the status and dignity of the profession, improving its prospects and conditions, and a better education and training. Turning to Continental educationalists, we find many corroborative remarks. When the education of Finland was organised, the great educational genius,—Cygnæus—who undertook the work, is reported to have said, "I will begin at the logical beginning, at the most fundamental point, I will first start a training college for teachers. If I have a supply of able and effective teachers, that is the most important thing."

The very obvious moral of all this is that millionaires, wishing to invest large sums of money in the excellent object of helping education, can make that money most fertile for good in the form of scholarships for embryo teachers.

And now let us go back a hundred years, and see what chances the teachers of England had at that time of a liberal education, sound knowledge, and a professional training. Unfortunately for England a most undesirable gulf has separated the teachers in our secondary schools from the teachers in our elementary schools. We can afford to speak of it now because it is fast vanishing. Different ideals, different conditions, different methods, have existed on the two sides of that gulf, and we are practically forced to consider the two sides separately. I will take first *secondary* education for two important reasons.

Secondary education is first chronologically. Matthew Arnold tells us that "the secondary school is the most ancient of existing educational institutions. * * * By its side the primary or elementary school, springing up as it does from needs and ideas that are comparatively modern, seems but a creature of yesterday." Dr Jessopp was nearly right, not quite, when he said the other night that there was practically no elementary education in the year 1800, there was at any rate very little, and secondary education was far more advanced.

Secondary education under certain conditions is more important than elementary education. In any country really democratic

in government, secondary education ceases to be the education only of a class but is also the education of the clearest thinkers, the ablest brains, the real leaders of the nation, i.e. it becomes primarily the education of the real aristocracy of the nation. English education is obviously moving towards this democratic goal, and when it is reached, secondary education is obviously more important than elementary.

Alas! even in *secondary* education we must again classify, for there are deep trenches, almost gulfs, even in this educational field. We have, first, the famous Public Schools, and those grammar schools which are profoundly affected by them. Secondly, the mass of middle class schools for boys. Thirdly, secondary schools for girls. The trenches between these three divisions are not as wide in 1900 as they were in 1800, but they still exist.

The first class,—the big Public Schools and grammar schools,—drew their teachers a hundred years ago as now almost entirely from the two old Universities, and we must go there to see what chances those teachers had in 1800. "The curriculum at either university was narrow, and was neglected with impunity, and distinctions were awarded under the most arbitrary rules, when they were not a matter of pure favouritism. Residence for four academic years was the one qualification for a degree." The weight of antiquity rested heavily on both universities. Oxford was governed by statutes accepted in 1636, and the Cambridge code dated from 1570. It is refreshing to remember how things have changed for the better since 1800 in our two old Universities. Still the advantages they offered at the beginning of the century were great and obvious, and when in the middle of the century a Royal Commission examined the class of schools which they most influenced there were no great abuses such as were found in the middle class schools. The masters of the big Public Schools and best grammar schools were then as now the aristocracy of English teachers, best educated, best paid, teaching under the best

conditions, in many ways most typically English, and embodying the best traditions of English education. These are the only possible leaders of an united profession of teachers in England. We still wait for that union, and we still wait for our leaders.

It is of importance to remember that such advantages as the two great English universities offered to teachers in 1800 excluded three bodies of teachers. First, all who could not afford the expense of a somewhat expensive university life. This would exclude practically all elementary teachers, and a large number of middle class teachers. Secondly, all who did not conform to the doctrines of the Church of England, i.e. Nonconformists, Jews, and Roman Catholics. "At Oxford a dissenter was not suffered to matriculate at all, or to enjoy the instruction or any other privilege either of University, College, or Hall. At Cambridge he might become a student, but in other respects he was in nearly the same position then as the 3rd class of excluded teachers—women—are now. He then, as they now,—"could obtain no degree, hold no office, receive no emolument, and take no part in the government of the University." Thus poor teachers, all Nonconformist teachers, and all women teachers were excluded from the advantages of an university education in the year 1800.

There was a slow but steady improvement in middle class teachers and women teachers from the beginning of the century to the sixties, when important Royal Commissions give us a very faithful picture of our lower secondary schools and teachers, and a sad picture it is which Dr Scott painted for us the other day. If we paint the shadows a little darker and put in a few more gloomy colours, we have a fair representation of the Secondary Teachers and Schools of 1800 for girls and for middle class boys.

The first important date in this century for secondary teachers in England is 1828, when two important events occurred. *Dr Arnold went to Rugby.* The Master of Trinity

has already told us how great was this effect on the masters of our great Public Schools, and, later, his influence profoundly affected the less fortunate middle class teachers and women teachers. His appointment is worth considering, because it throws much light on what English people considered to be the necessary qualifications for a teacher, indeed for a Headmaster. A scholar he was undoubtedly, but he had had practically no experience in public school teaching. Still he was regarded as "the right kind of man" and I have been much struck by the frequency with what I have heard English Heads of schools say with reference to the appointment of Assistants, "Is he, or she, the right kind of person?" However indifferent we have been in the past to other necessary qualifications, I think we have always valued highly *character* in teachers, and have believed profoundly in the importance of *personality* in teachers. This, combined with great freedom, has certainly, I venture to think, enabled our great teachers to count for more than the great teachers of some other countries. I would put this as one of the advantages we have enjoyed even in the midst of our educational chaos, an advantage which I hope we may continue to retain in the educational cosmos towards which we are trending. It is interesting to note Dr Arnold's own views about the requirements of a teacher. "What I want is a man who is a Christian and a gentleman, an active man, and one who has common sense, and understands boys." He would like scholarship, but if he had to choose he prefers "activity of mind and an interest in his work to high scholarship."

In 1828 there was also started in London the University College. This was an event of great importance to teachers, because it was the first of many colleges which offered University education for a comparatively small fee, irrespective of creed, and, at a later period, irrespective of sex, thus enfranchising the three classes of teachers disfranchised in 1800. In four cases, universities have arisen from university colleges,

namely, Victoria University, the University of Wales, London University (I refer to the newest phase of it), and finally our newest university, that of Birmingham. This development of university education has profoundly affected the great mass of teachers who could not have entered the old universities. The examining university of London has also been of considerable advantage in giving a status to teachers debarred from Oxford and Cambridge, although it has had the serious disadvantage of severing to some extent an university degree and university teaching. The year 1828 had thus great importance for all classes of teachers in England.

The next important date was 1846, when the College of Preceptors was opened. That quaint old-world name covers an heroic, if not altogether successful, attempt at a reform of education, especially interesting because it was made chiefly through the improvement of teachers,—the easiest of all methods of educational reform. Believing as I do that not only complete successes but also partial failures sometimes count for much in real progress, I venture to say that the College of Preceptors has been an important item in the history of the training of teachers in the present century. The start was typically English, and I will therefore describe it. A few teachers in Brighton met, formed a committee, and began more or less informally to help one another and to help other teachers. The Association soon moved to London, and in 1849 obtained its charter. The function of the college was declared to be "the advancement of education especially among the middle classes," and "to give professional knowledge and professional diplomas, especially to teachers of private schools." Its mission therefore was to that large section of secondary teachers outside the area of the big Public Schools and endowed grammar schools, and I would remind you that fifty years ago neither university help, nor State aid, nor enlightened public opinion were at hand to stimulate, test, or criticise this large area of schools. Even half a century ago the enlightened founders

of the College of Preceptors aimed at giving professional knowledge to teachers. From the beginning lectures on education were delivered, and they continue to the present day. In 1873 the first English Professorship of Education was established at this college, and not at the old universities as one would perhaps have expected. The professorship lapsed after a few years, but the lectures were continued. From 1849 examinations for teachers have been held, including the theory and practice of education. Since 1888 the college has provided four annual scholarships for teachers, and a practical certificate for teachers. Professional training has never been forgotten. Year after year a certain sum of money has been saved and laid aside for the purpose of starting a training college for secondary teachers and in 1894 this was done. Money was freely expended (for the first time in the history of English education for this purpose), every effort was made, but the scheme failed, and in 1897 the experiment was given up for the time being. I have dwelt in some detail with the history of this college because it is very typical of sturdy private English effort, and because, probably in the coming century, the State and the municipality will do, and no doubt far more effectively, much that private enterprise has had to do in the 19th century, if it were to be done at all. I am therefore describing a phase in the evolution of education which is never likely to reoccur.

Going back to the forties, when the College of Preceptors was started, between 1848 and 1854, two colleges and two schools were established which have had a profound effect upon women teachers, namely, Queen's College, Bedford College, Cheltenham Ladies' College, and the North London Collegiate School. These have both required and made possible a far higher standard for women teachers. Miss Gadesden has already spoken eloquently of the valuable contribution to secondary education for women which has been made by the Girls' Public Day School Company, and to a lesser degree by other companies and associations.

The middle of this century was a time of considerable unrest, educational as well as political. Two important Commissions investigated Secondary Education. By the foresight, tact and energy of a little band of women, the second and more important commission included in their research a few secondary schools for girls. The incalculable benefit of university education was gradually opened to women, and even before this women teachers found great stimulation and valuable guidance in their teaching work through the testing and criticism of university examinations. The young teacher of to-day is perhaps apt to forget the great advantage to girls' education, especially in the beginning, of the Local Examinations.

From the sixties the education of women teachers has made very rapid progress. In 1869, Girton College was opened, and two years later, Newnham College. Eight years later two women's Halls were opened at Oxford, followed quickly by others elsewhere. From the seventies, a substructure of university education has been possible for an increasing number of women teachers, and each decade has increased the number of graduate women teachers.

The time seemed ripe in the seventies for the further development of a special professional training for teachers. Short courses for women secondary teachers had been given by the Home and Colonial Elementary Training College, and elsewhere, and informal training had been possible at the Ladies' College, Cheltenham, and no doubt at other good schools. The first serious attempt at secondary training was in 1878 by the establishment of the Maria Grey Training College, on whom fell the honour and also the special difficulties of starting the movement as regards women. I find that between 400 and 500 students have been trained at this college, of whom about 50 have been graduates.

During the next year, 1879, the University of Cambridge made a remarkable departure. From 1871 to 1876 resolutions were passed by the Head Masters' Conference in favour of the

training of teachers. A committee was formed, and memorials were forwarded in 1877 and 1878 to the Universities of Oxford and Cambridge. It really seemed as if those who were historically our natural educational leaders were going to initiate the training of secondary teachers. Schemes were framed by both universities in 1878. In 1879 the committee sent questions to all the members of the Conference to see how far they were willing to adopt the schemes of the universities, but the amount of support was very small. The University of Cambridge, however, started courses of lectures on the history, practice, and theory of education, and these continue to the present time. In the following year this university also started an examination for teachers. Nearly 1500 candidates have successfully passed this examination, about 60 men and the rest women. The University of London soon followed with a teacher's diploma for its own graduates and nearly 80 candidates have obtained this diploma.

In 1881 the question of training was again discussed at the Head Masters' Conference, and a further series of questions was sent round to the members in 1882. The answers were so discouraging that the question was dropped. Meanwhile in 1882 the Finsbury Training College for men was decided on, and was opened in Jan. 1883. There was an excellent Council, including Dr Butler, Dr Percival, Mr Bell of Marlborough, Mr Thring, Dr Ridding, late Headmaster of Winchester, etc., but the scheme was either premature or not what was required, for we find the first entry consisted of three students, all of whom had scholarships, and the entry for the second year consisted only of three university men, and in October 1886 the college was closed, partly for want of funds, and partly no doubt because of insufficient support from the Headmasters of the great Public Schools and the best grammar schools. Thus in the history of secondary training in England we are obliged to enumerate the wreck of several hopeful schemes.

In 1885 two more training colleges for women were estab-

lished, which fortunately still survive. Each had certain elements of novelty. The training department in connection with the Ladies' College, Cheltenham, was the first attempt to connect the secondary training of women with a famous school already in existence. About 120 students have been trained in Cheltenham, about one in nine have been graduates.

In the same year, under the beneficent shadow of this university was started another training college, which probably many of you have visited. It was the first residential secondary training college, and also the first I think to utilise lectures on education given at an university. It has had some 600 students, about 180 of whom are graduates.

Several other training colleges have been started for women, but as yet the numbers attending them are small.

In 1890 Day Training Colleges for elementary teachers were established in connection with universities and university colleges, and most of them have now made provision for the training of secondary teachers as well as elementary. As yet few secondary teachers have taken advantage of these arrangements.

One of the disputed points in training at present is whether it is advisable to train together teachers preparing to teach in secondary and in elementary schools. In the presence of conflicting opinions I may be allowed perhaps to give a personal one. I believe that training is affected to a small degree by the kind of educational work students are going to undertake (and this necessary differentiation is I think quite possible in one college), but it is affected to a considerable degree by the kind of education which students have received. It appears to me therefore undesirable to attempt to train together a pupil teacher educated in an elementary school, whose qualification is a Queen's Scholarship, with another student educated in a good grammar school or high school, and who has a degree obtained at Oxford or Cambridge. On the other hand I see no reason why two university graduates

should not with advantage be trained together, although one intends teaching in a secondary school, and the other in an elementary school.

In 1891 an important Select Committee was appointed in connection with Teachers' Registration. The 16 members included Mr Arthur Acland, and their report contained these words, "Your committee regard as one of the most important objects of a registration bill the training of teachers in secondary schools." This report contains a mass of information about secondary training as it existed in 1891, and the opinions of many of those concerned in training.

In 1893 an important conference was held at Oxford on secondary education. The report of that conference gives a very fair idea of the opinion of English secondary teachers at that time on the question of training. Three years later a similar conference was held at Cambridge, and it is easy to detect that public opinion on training had grown between those dates.

In 1894 occurred that gallant but unsuccessful attempt to start a training college by the College of Preceptors, to which I have already referred.

In 1894—95 we have a very important Royal Commission on Secondary Education, and its opinion on training is of course of great value. In the report occur these words, "We are disposed to think it is generally desirable that those who intend to adopt teaching as a profession should pass through a course of special preparation for it." Future generations of teachers will no doubt wonder at the term "generally."

In 1896 an important and fairly representative committee of secondary teachers was established to consider the question of training, and their pamphlet at present represents the high-water mark of English opinion on this question, and deserves careful study.

During the last five years the universities of Oxford and Cambridge have both initiated schemes of secondary training,

Cambridge for men only, as a training college for women already existed, Oxford for men and women. Professors of Education have also been appointed in Wales, Liverpool, and Manchester.

During the last twenty years English public opinion on training has steadily grown, and the places where secondary training can be obtained have steadily increased in number. Still we in England know we are but at the beginning of things. Let me remind you for one moment what a serious drawback it has been to us in England, right through this century, that the first class of teachers to be trained were *elementary* teachers, and the second class were *women* secondary teachers. Until the aristocracy of our profession seriously grapple with this problem of training, we must wait I think for a satisfactory solution as far as England is concerned. Meanwhile the registration of teachers lies ahead, and legislation may force the masters of our great Public Schools into this struggle, where they, with their greater advantages and privileges, should always have been in command.

Meanwhile there are apparently four dangers in the immediate future of secondary training which we should avoid:

1. So to multiply the centres for secondary training, that instead of a few admirably equipped centres, we shall have a large number inadequately equipped with a few students in each. I confess I have been startled to find lately the number of present centres that have no students or very few. It is obvious that this is financially possible only when secondary training is but one of several functions performed by a given staff, and this arrangement may easily tend to give a very inadequate idea of the profound educational importance of secondary training. On the other hand the work of training is so difficult and requires so much individual attention, that it is plain that a training college can easily be too large to carry on its work very effectively.

2. To attempt to carry out at the same time two such

different processes as a general education and a professional training.

3. Instead of thinking out the great problem of secondary training for ourselves in England, aided by the experience of training in other countries, to attempt to graft a foreign system of training on to our English education.

4. To attempt to limit experiment and differentiation in methods and conditions of training.

If we avoid these four mistakes, and if the aristocracy of English teachers devote their attention to the question of training, we shall probably in the coming century have a satisfactory system of secondary training in England.

Let us now turn briefly to the training of teachers for elementary schools. Sir Joshua Fitch has already described to us the schools and teachers of a hundred years ago. I came across a statement the other day which I think reflects public opinion on elementary education a century ago. The statement was made by an educational authority so high that I dare not give it, and referred to school buildings. "A barn is a very good model for an elementary school, and a good barn can be easily converted into a satisfactory school building." Such statements no doubt explain the simple but not beautiful style of rural schools that one still occasionally meets with.

The evangelical revival at the end of last century had produced a large number of Sunday Schools. It has been truly said, "The idea of education for the poor sprang in England from a religious impulse, it was fostered by intense religious zeal. * * * Thus the Sunday School came to be the type of the daily school, which at first only gave instruction to read the Bible." As Mr Graham Balfour points out, "The germ of the religious difficulty has lain in the English elementary system from the beginning." "The services of the Churches to elementary education have been many and splendid and the Church of England has been pre-eminent in its self-sacrifice and devotion as in its privileges." This historical fact,

—the ecclesiastical foundation of our elementary education—explains our sectarian training colleges and our public grants to them, as well as the comparative ease with which three times in this century we have suddenly increased our supply of elementary teachers when the need arose, because in each case the Churches made a special effort. It explains also some of the special difficulties under which we suffer at present in the training of elementary teachers.

Two educational societies referred to by previous lecturers (the National Society and the British and Foreign School Society), both of which still remain with us, were started early in the century to develop elementary education. A large number of teachers were required, and both societies were forced to train a considerable number. Sir Joshua Fitch described to us the other day the Monitorial System, adopted by both Societies, in which a Head Master has a staff of children—the monitors. He teaches them, and they teach the school. The training required for this system was described by one of the founders of the system in these words: "Give me 24 pupils to-day and I will give you 24 teachers to-morrow." Surely the shortest course of training ever suggested, 24 hours! It is hard for us to realise the gratitude felt at the time for this primitive system of teaching, the training for which was of course quite mechanical and mere imitation. I quote from a contemporary writer, which quotation shows vividly the folly of prophecy: "Thousands upon thousands will bless him (the founder of the system) while he yet lives, and a perpetual series of millions will revere his memory." Both the educational societies established model schools where teachers were trained for a few months in the system.

From about 1810, public interest in elementary education grew steadily, politicians began to pay attention to it, and in 1838 came the first Treasury grant for elementary education. That remarkable man, Sir J. Kay-Shuttleworth,—the real founder of our primary education—saw, as most of us now see, that the

only possible compromise was to give public money for education to the two religious societies already occupying the educational field. Sir J. Kay-Shuttleworth and his friends saw, however, also clearly that the training of teachers was not really a *denominational* concern at all, but a *national* concern. May I be allowed to add also that it is not a *municipal* concern? They earnestly desired a State training college, and two attempts were made in that direction, Kneller Hall, and the college at Battersea founded privately by them. Both attempts failed, largely because of the religious difficulty, and we have still no State Normal college. Meanwhile public money was pouring in for elementary education in an ever-growing stream, and a considerable amount of it went to the training of teachers—for model schools, the building of training colleges, and for their equipment. Meanwhile the Monitorial system had failed. In 1842, Sir J. Kay-Shuttleworth said: "Elementary Schools generally are in a most deplorable condition..... The Monitorial System has not only utterly failed, but for the time being has ruined the confidence of the poor in elementary schools and exhausted the charity of the middle classes." Something had to be found to take its place, and Sir J. Kay-Shuttleworth and his friends imported from Holland what we know by the name of the Pupil Teacher System. This was in 1846, but we did not carry it out in England exactly in Dutch style. In Holland, elementary scholars from 13 to 18 helped the Head Master, and were themselves taught in the evening by an association of masters in each town (corresponding to some of our present pupil teacher centres, which is a comparatively new development in England). Also all Dutch pupil teachers went to a central training college to complete their general education, and their knowledge of the principles and methods of teaching. Even now all our pupil teachers do not pass to a training college. Slowly and gradually we have improved our English pupil teacher system, but even to-day many consider it a totally inadequate plan for educating and

training efficient teachers. Further information on this subject can be obtained from the report of a Departmental Committee in 1896, which considered the question of pupil teachers.

I will describe in detail the best pupil teacher arrangement that I know at present in England. I give it because I believe we are slowly tending towards some arrangement of the kind all over England. The pupil teachers are chosen by competitive examination at the age of 15. Only those are admitted to the examination who have been for at least two years in a secondary school. The successful candidates are sent back to a secondary school for two years, and the School Board pays all their school expenses. They spend one afternoon a week in an elementary school, helping and being helped. At the end of two years they become half-timers, spending half their time in the same secondary school to continue their own education, and half the time as an ordinary pupil teacher in an elementary school. They receive the ordinary pupil teacher's pay. At 19 they can pass to a day training college in connection with an university college, and the majority will be able to take their degree during their training course. This is by no means an ideal arrangement, but superior to anything we have had in the past in England.

Going back to the forties, when the pupil teacher system was established, it is very sad to read a description of the teachers of the day.

In 1839 we read: "There is a great lack of teachers; almost the only teachers are untrained men who for some defect of body or health had been driven from the rougher struggles of life and muscular toil, or self-taught Sunday School teachers trained for three or six months in some central model school."

In 1849, Macaulay thus describes the schoolmasters of the poor: "How many of these men are now the refuse of other callings—discarded servants or ruined tradesmen, who do not know whether the earth is a cube or a sphere, whom no gentle-

man would trust with the key of his cellar, and no tradesman would entrust with a message." The condition of the dame schools can be realised by a statement from one of the dames: "It's little they pays us, and it's little we teaches them."

Even as late as 1858 we read the following description of a school, giving the conditions under which some of the teachers of that day taught: "The closeness of the room made animal heat save artificial fuel, and though the foul air may for a time make the children restless, it soon acts as a narcotic." I am not describing a prison, but a school, not in a remote rural district, but in the heart of London. The Assistant-Commissioner, who gives the account, says it is a very usual kind of London school. The teachers were, some of them, discharged barmaids, consumptives in the last stages, vendors of toys, outdoor paupers, men and women 70 and 80 years of age, and all this only 42 years ago! The Assistant-Commissioner remarked, "None are too old, too ignorant, too feeble, too sickly, to regard themselves and to be regarded by others as unfit for school keeping. 'Bodily infirmity is a special reason for becoming a teacher.'"

Meanwhile, in the middle of the century, select committees and Royal Commissions were collecting information and arousing public opinion, and public money was contributing funds for the instruction of pupil teachers, for training colleges, for their staffs and for their pupils. In 1847 the Education Department arranged for an examination for elementary teachers, and provided an augmentation grant for all those who passed it. Matters were steadily improving, a better class of teachers were gradually appearing, better educational advantages were opening before them, denominational training colleges were springing up more and more, and the work of teachers was being inspected, when—suddenly a very serious step was taken in 1861. A Royal Commission had considered that the junior forms in school and the less intelligent pupils were being neglected, and had suggested that *part* of the Government grants should be given

on individual examination by inspection. Mr Robert Lowe gave us that incubus,—payment by results, where practically the *whole* of the grant depends on individual examination. Only in the last decade has this terrible weight been removed, and it still seriously affects us because so many of our elementary teachers have been trained and have taught under these bad conditions. The remedy suggested by the Royal Commission has been frequently attacked, and Matthew Arnold, with far clearer insight than the Commissioners, thought "that what was really needed was to deal with the irregular attendance and premature withdrawal of scholars."

The effect of the Revised Code of 1861 was very fatal to elementary teachers. It made the conditions of teaching less advantageous to those already in the profession, and it made the profession unpopular, reducing the number and the quality of the teachers.

In 1870 came a third sudden increase in the demand for teachers. The first increase in this century was in its first decade, when for religious motives the nation began to take a greater interest in the education of the people. The second increase came in the 3rd and 4th decades, when factory Acts for half-timers tended to make education compulsory in the manufacturing districts; and now again in 1870 Forster's great Act caused a sudden increase in the number of schools and a greater demand for teachers. Elementary training colleges were enlarged and increased in number, new and improved regulations were made for pupil teachers, the burden of payment by results was gradually lessened, and finally disappeared, and in 1890 Day Training Colleges were established in connection with most of our universities and university colleges. The gulf between secondary and elementary teacher is rapidly tending to disappear, the advantage of a cheap university education is being utilised largely by elementary teachers, and university extension has been a great boon to many of them.

The development of the training of elementary teachers in

England during this century has been remarkable, and our training colleges now can be compared safely with those of other countries. Indeed the development has been so rapid, it is not uncommon still to hear even English teachers attack faults in English elementary training colleges which no longer exist.

Meanwhile there are still some serious defects. We have no State normal colleges, and in so far as the majority of existing training colleges are still sectarian, Nonconformists are at a disadvantage. We have not nearly enough room in our training colleges for our teachers. We still employ as teachers children and uncertificated men and women. It is still difficult for secondary teachers to enter elementary work. Elementary teachers are still too isolated in education, training, and teaching. But as we look back through the century and remember how it began and how it finishes we have some reason I think for satisfaction.

I have no time to refer, as I had hoped to do, to training in Scotland, Ireland, and our Colonies, to say nothing of training in foreign countries. I have no time even to refer to the training of Kindergarten and other specialist teachers. Let me end by briefly enumerating what seems to be at present the most advanced view in England on the three functions of an ideal Training College,—

First, it must be a *sieve* to keep out from the profession certain classes of persons,

(*a*) Those who are physically, mentally, and morally unfit to educate.

(*b*) Those who are intellectually not above the average, because it is only from the intellectual aristocracy of a community that we can hope to obtain those who can carry on effectively the difficult and important work of teaching.

(*c*) Those who have not the necessary knowledge.

(*d*) Those who have not the necessary education, which is by no means the same as class *c*.

(*e*) It must be a still finer sieve to keep out also those who during the course of training show clearly that they will never make good teachers.

Secondly, it must give the conditions for a scientific and philosophical professional training for teaching as it is carried on to-day. Any discussion or even enumeration of these conditions is obviously impossible in a lecture of one hour, but I need not remind an audience largely English, that the conditions of an ideal Training College should respect and foster individuality, not repress it; and that the conditions should make it unlikely that the students should even be tempted to forget that a teacher who is only a teacher can never be a good teacher, because in our schools we are preparing human beings for a many-sided life, and consequently teachers must have a many-sided life themselves.

Thirdly, it must be a centre of educational experiment, and it should initiate educational reform, i.e. it must take a leading part in the evolution of education in the country.

The task of education grows more difficult not less as civilisation becomes more complex and the centuries roll on. As our ideal of education rises we demand better teaching and better prepared teachers. As history and science and philosophy develop we shall demand more and more that all these shall contribute to the professional training of our teachers.

Thus we dream to-day! A hundred years hence another lecturer will doubtless give to successors far higher and clearer dreams of training, and unroll a far more successful history of a century's progress in the training of teachers.

CHAPTER X.

THE UNIVERSITY EXTENSION MOVEMENT.

BY

PROFESSOR SIR RICHARD JEBB.

IT is now rather more than forty years since the old Universities of England began to take a definite part in the education of persons other than their own matriculated students, by instituting the Local Examinations of Schools. It is twenty-seven years since the system of local teaching known as University Extension took its rise; and the circumstances of its origin are noteworthy. In the year 1872 the University of Cambridge received memorials from a number of public bodies and educational organisations. Among these bodies were some large municipalities, such as those of Birmingham, Leeds, and Nottingham; the Educational Committees of some Industrial Societies and Mechanics' Institutes; and the North of England Council for the Education of Women.

These memorialists said, in effect:—"We know that in many great towns and rural districts there are large numbers of persons who desire the benefits of higher education. These persons have passed the age of attendance at school. But they have not the means, or the leisure, to spend three or four years at a University. Many of them are young men of the

middle classes, employed during the day as clerks or shop-assistants. Many others are artisans. How are we to provide for the higher educational needs of such persons, who can study only in the evening? We turn, in this difficulty, to the old Universities of England. They are the national centres of the higher education. Why should not the Universities come to us, since those for whom we plead cannot go to them? Why should they not send us teachers, men of high attainment in various branches of knowledge? Such men could render a new and great service to the nation, if as missionaries of the Universities, as interpreters of the liberal spirit in education, they would conduct evening classes in our towns for men who have no leisure during the day."

At the same time the memorialists pointed out that such teachers might render another service of a somewhat different kind. In the great towns there are always large numbers of persons, more especially ladies, who have more or less leisure in the daytime—persons of good education, who desire to enlarge their knowledge and to improve their minds. Such persons would welcome regular instruction in literature, history, or science by able lecturers from the Universities. Arrangements might be made with the various towns desiring such instruction, so that each University teacher should have a circuit assigned to him. His time would be sufficiently occupied with evening classes, as well as lectures in the daytime; and he would receive adequate remuneration.

Such was the substance of the memorials. The University of Cambridge, in 1872, appointed a Committee to consider the matter. The Committee reported in 1873, recommending that the University should begin with an experiment on a small scale, by organising courses of lectures in two or three towns. This recommendation was accepted. In the winter of 1873 the University of Cambridge inaugurated the Extension Movement by establishing courses of lectures at three towns in the Midlands, *viz.*, Leicester, Derby, and Nottingham.

The method of teaching adopted was, in its principal traits, the same which has been pursued ever since. That method has four characteristic features,—the lecture, the class, the weekly paper-work, and the examination. The lecture presents the subject in broad outline. For each lecture a printed syllabus is prepared. This syllabus gives an analysis, a logical abstract, of the lecture, with such quotations or statistics as the lecturer thinks it expedient to print, and a list of text-books or other authorities on the subject. After the lecture the class is held, when the lecturer goes more into detail. Students are invited to ask questions, and the lecturer explains difficulties. The class enables the lecturer to become personally acquainted with some, at least, of the students, and to help them individually. At the class questions are given out by the lecturer, on which the students write short essays. These weekly exercises form an important part of the system. The lecturer revises the essays, and returns them with his comments at the next class. Lastly there is the examination. This is held at a short interval after the close of the course. The examiner is a different person from the lecturer, and is specially appointed for the purpose by the University. He issues a list of those who have passed the examination, arranged in alphabetical order. Those, however, who have gained distinction are indicated by an asterisk.

The experiment made by Cambridge in 1873 proved highly successful, and applications for courses of lectures poured in upon the University from other towns. Three years later, in 1876, a Society for the Extension of University Teaching was established in London, to carry on similar work in the metropolis. In 1878 the University of Oxford established similar lectures. After a year or two, the Oxford work was interrupted for a time; but in 1885 it was resumed, and has since been carried on with marked success. Other British Universities have also borne their part in the movement. Durham has been associated with Cambridge in the work. The Victoria

University has organised lectures in Lancashire and Yorkshire. The four Scottish Universities have united in forming a similar plan for Scotland. A Society for the Extension of University Teaching has been formed in the North of Ireland. In 1898 a Conference was held at Cambridge to celebrate the completion of twenty-five years' work. The statistics drawn up for that Conference showed that in the previous winter, under the auspices of Cambridge, London, Oxford, and the Victoria University, 488 courses of lectures had been given in different parts of the country, and had been attended by nearly 50,000 persons. Meanwhile the movement has spread to the British Colonies. Similar movements have been successful in the United States of America and in several countries of Europe.

In a general survey of English University Extension, the central fact is that the growth of the movement has been natural and spontaneous. It did not originate in an abstract theory of the duties incumbent on national Universities. It was a response by the Universities to a desire which actually existed in the country. It was their mode of complying with a demand which was urgently pressed upon them from various quarters. And the demand itself has been increased by the success of their missionary work.

Subsequent papers will deal in detail with special aspects of that work, and with the steps in its progress. The scope of the present paper is more general. And, in the first place, we may ask this question:—Why did the University Extension movement begin just at that time, in 1873? What were the educational and social conditions in England at that moment, which caused the new need to be felt, and which disposed the Universities to recognise it? The fundamental idea was not a new one. Three centuries earlier Sir Thomas Gresham, the founder of the Gresham College in London, had the same idea. He wished to provide lectures of the University type for persons engaged in business in the City of London. A similar scheme was propounded in 1650 by William Dell, Master of

Caius College, Cambridge, who wished to see a University or a College established in every large town of England,—a wish which has been largely fulfilled in our own days. But such men were in advance of their age. Before the higher education could be more widely diffused it was necessary that the lower grades of instruction should be efficiently organised. It was only in 1870 that, after long efforts, England obtained a national system of Primary Education. Meanwhile the efforts and discussions which led up to that result had familiarised the minds of the people with the importance of the subject. The country was prosperous, and the working-classes had more leisure than formerly. The facilities for rapid locomotion had made it possible to have a system of itinerant teaching. These were some of the conditions which favoured the spread of a desire for higher teaching.

Meanwhile the old Universities had been passing through changes which rendered them more sympathetic with that desire. Between 1850 and 1873 a series of reforms had greatly widened the range of studies at Oxford and Cambridge, and had also opened them to large classes of the community which had formerly been excluded from them. The term "University Extension" first came into use at the beginning of that period, but was employed in a different sense from that which it now bears. A letter entitled "Suggestions for University Extension" was addressed in 1850 to the Vice-Chancellor of Oxford by Mr William Sewell, of Exeter College. His proposal was, in fact, to establish Local Colleges which should be directly associated with the old Universities. This proposal met with no acceptance at the time. The more elastic and more comprehensive system now known as University Extension dates, as we have seen, from the action taken by Cambridge in 1873. But since that time the growing desire for higher education has led to the establishment of Local Colleges in many large towns. It has also led to the foundation of new Universities, *viz.*, the Victoria University, the

University of Wales, and, more recently, the University of Birmingham; while the University of London has just received a new constitution, under which, instead of merely examining, it will also teach.

This growth of Local Colleges and new Universities may naturally suggest a further question:—Has the University Extension movement finished its mission in our country, or is there still useful work for it to do? It commenced, as we have seen, in a time of transition, when the need for higher instruction was beginning to be more strongly felt. It filled a gap in our educational system. It was a pioneering movement, which prepared the way for permanent local institutions. Can we now say that its task is accomplished; or can we point to valuable functions which it still performs?

Two such functions may be named. In the first place, the agency of University Extension has still a distinctive value as supplementing our system of Technical Education. Within the last ten years the movement for Technical Education in England has become vigorous. The Councils of Counties and Boroughs, aided by funds which the State has placed at their disposal, have covered the country with a network of classes for the teaching of technical and scientific subjects. Technical Institutes have arisen in the larger towns. The danger which besets this form of instruction is that of narrowness. There is a tendency to make the training too exclusively scientific or technical, and to bestow too little attention on the study of History, Literature and Languages. The most enlightened friends of Technical Education in England are alive to this danger, and are anxious to guard against it. Now, the University Extension movement has always rested upon a large and liberal idea of education. At the present day it is one of the most vigorous organs of that idea. Thus it supplies a corrective to the narrowing tendency. Through the agency of University Extension, Technical Institutes can obtain teaching

in non-technical subjects. This, then, is one of the valuable functions which the Extension system still performs.

The second function to which I refer is of a different nature. In many an English town there are educational agencies of various kinds which arose quite independently of each other. But in several places the desire has been felt to co-ordinate such agencies, and to weld them together, so as to form a single institution. Thus in three towns—Reading, Exeter, and Colchester—a new type of Local College has arisen. In each of these cases the initiative has been taken by the representatives of University Extension. The process of co-ordinating the various local resources for education has been conducted under the direction of the Universities, acting through the Extension machinery. There are signs that such a result, so successfully obtained in the three towns above-named, will ere long be accomplished in other towns also. In this field, then, a most valuable work remains to be done by the University Extension system.

In conclusion, I would venture to say that the service rendered to England by the missionary enterprise of the Universities has been both intellectual and social. A new educational stimulus has been given to the country. Different classes of the community have been brought into sympathetic relations by fellowship in the elevating pleasures of study. And while the Universities have conferred benefits, they have also received benefits. This is strongly felt by many of our best University men who have been leaders and workers in the movement. At the centres of University Extension they have learned lessons not less valuable than those which they have imparted. The Universities themselves have acquired a new hold on the esteem, we might even say on the affection, of the nation at large. Nor are the Universities mere abstract names to the students in various towns where their lecturers teach. Their ancient buildings and their gardens are now familiar to thousands who, in former days, would never have seen them

Every year since 1888, when the first Summer Meeting was held at Oxford, large numbers of students are invited from all parts of the country to pass three or four weeks at one or other of the old Universities, where their time is divided between study and recreation. Coming from the busy centres of industry and commerce, they are brought under the subtle influences of that *genius loci* which haunts our venerable seats of learning, and thus form definite local associations with the *Alma Mater* already known to them in the persons of her emissaries. The large attendance at these Summer Meetings, the interest which they excite, and the pleasures which they give, are among the signs that our Universities were well inspired in entering upon a movement which has already had such good results, and which, as we believe, has still a work of great usefulness to do.

CHAPTER XI.

THE HIGHER EDUCATION OF WOMEN.

BY

MRS HENRY SIDGWICK.

[The lecture on the development of the Higher Education of Women in England during the century, which I was unable to give at the Summer Meeting in August, was not only never written, but I had not got so far even as to collect all the material I hoped to obtain for the purpose. Moreover for various reasons I am unable to develop the subject as I should like now. All I can do is to put down a few facts and considerations which may help to fill the gap there would otherwise be in the account of the educational work of the century. E. M. S.]

IT would not of course be true to say that in the earlier part of the century there was no secondary or higher education possible for women. There were some private schools with high ideals well carried out, there were some girls who were well educated at home by their fathers, and there were some women, Mrs Somerville, for instance, who contrived notwithstanding difficulties to obtain higher education. Moreover we find Mrs Barbauld and others encouraging girls to devote themselves to more advanced studies—such as Hebrew—after their schoolroom days were over. The general level of educa-

tion was nevertheless deplorable, and those who really wished their girls to have a good secondary education found it extremely difficult to provide it on account of the scarcity of teachers of their own sex who had any intellectual training whatever. It was this professional demand for educated governesses which led to the founding of Queen's College, Harley Street, under the auspices of the Governesses' Benevolent Institution in 1848, and of Bedford College in 1849. These were the beginnings of any systematic provision of Higher Education for women. The popular view at that time of women's intellectual incapacity for receiving it, which long neglect had rendered plausible, may be gauged by the often-quoted remark of Professor F. D. Maurice, in an inaugural lecture respecting Queen's College:

"We have set down mathematics in our course of studies, knowing that we might thereby encounter the charge of giving a little learning, which is dangerous, but being ready to meet that charge in this case as in others. We are aware that our pupils are not likely to advance far in mathematics, but we believe that if they learn really what they do learn they will not have got what is dangerous, but what is safe."

The next step attempted was due to the desire of women to equip themselves for another profession. In 1856, Miss J. M. White endeavoured to obtain admission to the medical examinations of the University of London, an attempt which was repeated by Mrs Garrett Anderson in 1862. These efforts failed, and it was not till 1878 that the University of London admitted women to its degree examinations and degrees. Now—at the end of the century—in the newly-constituted teaching University for London, women are on an equality with men, and the University includes two colleges for women, Bedford College and the Royal Holloway College (founded in 1887), as schools of the University, besides the London School of Medicine for Women (founded in 1875), and besides University College, which admits women to its classes.

The movement for the provision of better secondary and higher education for women was part of a general educational awakening in the country, and a powerful stimulus was given to it by the Schools Inquiry Commission, which sat from 1864 to the end of 1867, and reported in Dec. 1867. The Assistant Commissioners, who had examined and reported on the condition of secondary education in various districts, gave a deplorable account of the insufficiency of the girls' schools and of the immense difficulty of finding any adequately-educated female teachers for them, and this was confirmed by the evidence of Miss Beale, Miss Buss, Miss Davies, Miss Clough and others.

The Commission recommended the establishment of further colleges for women, and in particular supported the proposal then recently promulgated by the founders of Girton College for the establishment of a new college, "designed to hold in relation to Girls' schools and home training a position analogous to that occupied by the Universities towards the public schools for boys." This College began its existence at Hitchin in 1869 and worked from the first for the examinations of the University of Cambridge, as also did Newnham College, of which we may take either the establishment of lectures for women in Cambridge in 1870, or the opening by Miss Clough of a house for students in Regent Street in 1871, as the beginning. The Honour degree examinations of the University were formally opened to students of Girton and Newnham Colleges in 1881. In the meanwhile Somerville College and Lady Margaret Hall were founded at Oxford in 1879; and some of the examinations of Oxford University were first opened in 1884, and others from time to time afterwards as required. The Victoria University was opened in 1880; the Scottish Universities admitted women in 1892, and the University of Durham in 1895. The new University of Wales has from the first admitted women on equal terms with men; and the Royal University of Ireland, which is an examining body, is, with its affiliated Colleges, similarly open to them.

There are now in the United Kingdom hundreds of women reading for degree examinations and a few engaged in study of a more advanced character. At Cambridge alone there are at Newnham and Girton Colleges at this moment 284 students.

Progress as rapid as this would not of course have taken place unless it had been accompanied by the growing approval of public opinion. It seems now to be generally admitted that University education for women is needed. Almost all, I think, who took part on either side in the controversy of 1897 about admitting women to degrees at Cambridge were concerned to make it understood that they did not dispute the desirability of women—at least some women—receiving the higher education which Universities give. The discussion turned in the main on questions quite different from those which would have been raised thirty years ago. Then we should have been expected to consider whether women were intellectually capable of profiting by a University education. Examinations and the subsequent work of examinees have now convinced the world that they are. Then we should have been expected to prove that physically they were equal to the strain, or supposed strain, and that their health need not suffer, at the time or afterwards. Now, statistics collected on both sides of the Atlantic, not to speak of common experience and observation, have for most of us placed beyond question the conclusion that the danger is not materially greater in the case of women than of men. Then we should have had to meet the objection that University education would unfit women for the functions and duties of wives and mothers. Now that the daughters of the first generation of University women are entering our colleges, this question too can be put aside.

Those of us who have from the first believed that opportunities of receiving University education ought to be open to women, have, of course, the gratification of finding their own prognostications fulfilled. But it is upon far more than this that we have to congratulate ourselves. For these questions

were fundamental. Had experience answered them differently, University education would really have been impossible for women, as those who opposed it said; or at any rate, impossible for all but a few exceptionally constituted ones. We should have had to acquiesce in the melancholy conclusion that nature had given women aspirations after intellectual development, while furnishing them with bodies and minds unfitting them to receive it. As it is, the clearing away of these doubts has practically decided the main question in the affirmative and put it beyond doubt that women are to have opportunities of receiving University education. I do not, of course, mean that every one is convinced that this is desirable; but I do not think its desirability is any longer seriously doubted by any one who has looked into the facts, and whose opinion on the question is worth considering.

And it is not only in this country that the question is thus decided. It is similarly decided in our Colonies and in India, in the United States of America, and in most European countries.

The flowing tide in favour of women's education is shown in another important way—namely, in the amount of pecuniary support in gifts, bequests and endowments, which it has received. The following quotation from the Report of the Charity Commissioners in 1895 will illustrate this. "As to one particular branch of Educational Endowments," they say, "namely, that for the advancement of the secondary and superior Education of girls and women, it may be anticipated that future generations will look back to the period immediately following upon the Schools Inquiry Commission and the consequent passing of the Endowed Schools Act, as marking an epoch in the creation and application of Endowments for that branch of Education similar to that which is marked, for the education of boys and men, by the Reformation." (Forty-second Report of the Charity Commissioners in England and Wales, p. 17.)

From what I have already said it is clear that women now have, so far as Universities are concerned, almost the same advantages educationally as men. It is true that at Oxford and Cambridge their non-recognition as members of the University may give a certain precariousness to their enjoyment of these advantages, but I do not think they will lose them; and so long as they are allowed to retain them the absence of degrees is not an educational disadvantage—at least directly—though it may be one in seeking professional work.

The question still remains, however, whether in addition to this abundant provision of educational opportunities there is a need for new courses of University study specially devised to suit the requirements of women. It has been thought by some that this would be desirable, but I cannot say that my own experience leads to this view; the options offered in these days by Universities are so numerous that it is difficult to imagine in what the novelty of the new course would consist, if it did not go beyond the limits of properly academic work.

Intellectual tastes and abilities may no doubt be differently distributed among men and women, and this, in addition to professional aims, may lead to a somewhat different distribution among the various options offered; but this distribution may be trusted to arrange itself. That the dividing lines between different subjects will not be one of sex, and that there is as great diversity of intellectual tastes among women as among men, the highly specialised courses for a degree in honours at Cambridge give us an excellent opportunity of judging. Looking at the Tripos lists of my own College since the examinations were formally opened to women in 1881, I find that, omitting second parts of Triposes, 124 women have taken honours in Mathematics, 91 in Classics, 43 in Moral Sciences, 122 in Natural Sciences, 109 in History, 86 in Mediæval and Modern Languages—the smaller number in this latter Tripos arising from its having only been established in 1886. The University in no way points students to any one of these diverse honour

courses rather than to another; nor does the College exercise any pressure. Demand in schools does no doubt affect the choice of future teachers somewhat, as is shown by the smaller number who take Moral Sciences; but among subjects that are taught in schools there is no reason to suppose that a woman selects one course rather than another, except because she prefers it and feels herself likely to succeed in it.

In the preceding paragraph I have given the numbers for Newnham College only because I am naturally more able to speak with knowledge as to the absence of pressure there in favour of any special line of study; but it will be interesting to record here the whole number of women students of Newnham and Girton Colleges, who have taken Honours in the various Triposes (Honour Degree Examinations) at Cambridge, since they were opened to women in 1881. They are distributed as follows:

Mathematical Tripos	250
Classical ,, ...	227
Moral Sciences ,, ...	65
Natural Sciences ,, ...	180
Theological ,, ...	1
Law ,, ...	4
Historical ,, ...	176
Oriental Languages Tripos	1
Mediæval and Modern Languages	132
	1036

(These numbers take account of first parts of Triposes only, except in the case of the New Historical Tripos in 1900, for which, on account of the special conditions of the Tripos, the numbers taking the second part are included, and not those who previously took the first part in 1899.)

Apart from subjects of study it might be thought that the standard required for a degree in honours was too high for women, or that the work to be done in the limited time allowed at Cambridge might be too much for them. The following analysis of classes obtained by men and women for the five

years, 1896—1900 inclusive, affords a satisfactory answer to these questions:

	Men.	Women.	No. of women to 100 men under each head.
Class I.	496	58	11·6
Class II.	671	161	23·9
Class III.	570	142	24·9
Total classed	1737	361	20·7
Ægrotant in Honours ...	12	3	9
Attained standard of Ordinary Degree ...	124 (133)	9 (12)	9
Excused the General Examination	44	6	13·6
Failed completely	No. of men unknown to me		13·6
			10·1

It will be seen that the ratio of women to men is less in the first class and very much less among the failures than it is in the whole number classed, the deficiency being made up in the second and third classes.

It should be noted that the true proportion of women among the failures is considerably less than appears in the last column, as all the women who failed completely are included and none of the men.

Of course among the women who come up a considerable proportion do not take Tripos examinations. The reasons for this are various. Some come up knowing that they cannot stay for the necessary length of time; some are called away by family and other circumstances before their course is finished; some take courses of study other than Honour courses. In some cases there is failure of health, or it is discovered that the student has not the ability necessary to complete advantageously the course she has embarked on. The number of women who entered at Newnham and Girton Colleges in the five years

1893—1897 inclusive, and would therefore, had they completed an Honours Degree course, have taken Tripos examinations in the years 1896—1900 inclusive, was 487. Of these, 355*, or 72·8 per cent., actually did take Tripos examinations and obtain Honours in them. Of the 4631 men who entered in the same years, 2012, or 43·4 per cent., took Honours in Tripos examinations.

The number of women receiving academic education is, as will be seen from these figures, small compared with the number of men at Cambridge, and the same is true almost everywhere. I think that this inequality is likely to continue, because the demand for such education by both sexes is mainly due to its importance as a preparation for, or avenue to, professional work, and there does not seem to be any likelihood that as many women as men will enter professions for which University work prepares. But the number who already avail themselves of the opportunities of obtaining higher education open to them more than justifies the view of those who first began to provide such opportunities by the foundation of Queen's College half a century ago; and the progress made since and the capacity shown by women to make good use of the opportunities, as shown by the figures I have given, would certainly have surprised most of the advocates of Higher Education for Women in the middle of the century.

* This is the total number of women who obtained Honours. A few of them did so in two Triposes, so that this total is smaller than the total number classed 361 (as given in the table above), the latter total being the number of *names* in the class-lists.

CHAPTER XII.

NATIONAL EDUCATION AND SOCIAL IDEALS.

BY

MR M. E. SADLER.

"The English are a people so naturally inclined to freedom that they can hardly be induced to embrace any discipline that may abridge it."

HENDERSON, *Death-bed Declaration*, 1646.

"Liberty, which is the very genius of our civil constitution, and runs through every branch of it, extends its influence to the ecclesiastical part of it. A religious establishment, without a toleration of such as think they cannot in conscience conform to it, is itself a general tyranny: because it claims absolute authority over the conscience; and would soon beget particular kinds of tyranny of the worst sort, tyranny over the mind, and various superstitions; after the way should be paved for them, as it soon must, by ignorance. On the other hand, a constitution of civil government without any religious establishment is a chimerical project, of which there is no example; and which, leaving the generality without guide or instruction, must leave religion to be sunk and forgotten amongst them; and at the same time give full scope to superstition and the gloom of enthusiasm; which last especially ought surely to be diverted, and checked as far as it can be done without force. Now a reasonable establishment provides instruction for the ignorant, withdraws them not in the way of force but of guidance, from running after those kinds of conceits. It doubtless has a tendency likewise to keep up a sense of real religion and real Christianity in a nation: and is moreover necessary for the encouragement of learning."

BISHOP BUTLER, Sermon preached before the House of Lords, June 11, 1747.

"Is it not universally considered as an advantage to England that it contains so great a variety of original characters? If it may have been necessary to establish something by law concerning education, that necessity grows less every day and encourages us to relax the bonds of authority rather than bind them faster."

Dr JOSEPH PRIESTLEY, *Remarks on a Code of Education*, 1765.

I.

IT has often been urged by persons anxious for our social welfare that national education ought to be so planned, directed and enforced, as to establish and maintain throughout the whole body of the people one high national purpose, and to blend all individual wills in one common aim, so that by the gentle but unceasing pressure of a common education any fresh growth of conflicting ideals, whether of private interest or of public welfare, should be restrained. Thus (they think), as the younger generation came to manhood and womanhood, the old and impenetrable tangle of prejudices would be slowly but surely swept aside by the freely flowing, irresistible current of an unobstructed national will. "Every society, every Polity," said Carlyle in 1831[1], "has a spiritual principle, is the embodiment, tentative and more or less complete, of an Idea: all its tendencies of endeavour are prescribed by an Idea and flow naturally from it, as movements from the living source of motion." Remove therefore, the argument runs, the intellectual and moral obstructions which hinder the free passage of this national aim. Impregnate your whole education with it. In this manner and in this sense apply Fichte's maxim that the citizen must be gradually interpenetrated by the State[2]. You may not be able to do much with older people, though even there something is possible; but if you will only work on the children, the battle is won. Or, as it was bluntly put in a recent

[1] Carlyle, *Characteristics*, 1831, p. 12.

[2] *Characteristics of the Present Age*, 1806. Lecture XIV.

leading article, "The power which controls the schools in this generation, will control public opinion in the next."

This view of the nature and possibilities of national education is of no recent growth. It would indeed be strange if it were so. Supposing there to exist such a reservoir of moral and other influences, what is more likely than that longing eyes should have been turned towards it and that plans should have been skilfully devised for its effective use? And obviously it is not one school of opinion only which would like to find the jet of such influence firmly in its hand. But into the history and earlier fortunes of the theory I do not propose to enter in this lecture. It must suffice to say, omitting all detailed reference to what has happened or been proposed elsewhere, that all through the history of English education since the Reformation this idea—may I call it the proselytising theory of national education?—has constantly made its appearance, now in one camp, now in another: that more than once it has inspired attempts at legislation: that it has been put forward—generally as a novelty—under the authority of some august, and many worthy, names; that it has been the avowed object of several organised movements, and the suppressed premise, or unconscious principle, of many more: that it has been laboured for with great devotion by men poles asunder in their conceptions of the Universe and of human society, though inspired alike by an intense longing for the true welfare of their fellow-men; that, whenever English opinion has begun to flush again with revolutionary heat, there has always rung out in clear and unmistakeable tones, whether from the party of defence or from the party of attack, at least one earnest cry for some penetrating system of National Education which may "form and train up the people of the country to obedient, free, useful and organisable subjects, citizens and patriots, living to the benefit of the State and prepared to die in its defence[1]." But I will not occupy

[1] *Constitution of Church and State*, S. T. Coleridge, 1830, p. 65.

your time with a chain of extracts, as I am anxious, not so much to dwell on the details of the history of the idea, as to ask the question why is it that, in spite of the authority of its sponsors, in spite of the unflinching courage and unfaltering principle of many men who gave themselves to its advocacy, in spite of the sore need of many destitute districts squatted in by the unkempt and leaderless levies of the Industrial Revolution, in spite of the nation's extreme and admitted peril, moral and political alike, this plan of setting up a unifying, formative and intellectually systematised education has in no shape or form managed to get itself realised in this country, although throughout the whole period during which the matter has been in debate the plan has hardly ever lacked able, lucid and disinterested advocates? What has been the disintegrating influence which, time and again, has broken the force of the idea even when it has seemed to come almost within hazard of success?

II.

But before attempting to suggest an answer to this question, I will ask leave to consider what a truly regulative system of national education (assuming such a thing to be possible) would practically imply; what would be the necessary range of its operations, if the formation of the mind and habits of the millions of citizens is to be the test of its success; and if its aim is to produce, in life and practice, conformity to a preconceived ideal? In the first place, national education will clearly have to concern itself not with boys only, but with girls as well, and that is a point which, though nowadays universally admitted, was evidently not fully taken into account by some of those who conceived a school as if it should be a sort of combination of dyehouse, pottery and drill-hall, to be managed, and very strictly managed, as a legal monopoly, in its own predetermined interest, by the State. It is easy to say that schools

should prepare children for life. A much more difficult matter is to say how that is to be done. But the thorniest problem of all is to decide what the life is to be. And on hardly any question are there signs of more uncertainty of opinion than as to the kind of life for which girls should ordinarily be trained. It is generally prudent to wait a generation before pronouncing an opinion on the success of any particular kind of instruction. Courses of study are inflicted by one generation, not on itself but on its successors, and it is only fair to wait till the victims have come to their turn to speak. They have a disagreeable way of siding with their grand-parents. In *Pride and Prejudice*, you will remember, Miss Austen pokes a good deal of gently savage fun at Miss Mary Bennet and her literary extracts, but fifty years later the tables were turned and we were invited to smile at Miss Celia Brooke. Who shall be rash enough to say what is now in the air?

Nor, again, is national education a matter of primary schools alone, though Adam Smith did this country the bad turn of making at least two generations of English statesmen think that the State ought to keep its hand, as well apparently as its thoughts and its money, from any other grade of teaching except the elementary; and this too limited idea, which has helped to stunt our higher technological training and much of our modern secondary education, is preserved for us in the names of so large a number of our parish schools, as well as in the Argument of the last Book of the *Excursion*[1]. Clearly, if

[1] 'Earnest wish expressed for a system of National Education established universally by Government. Glorious effects of this foretold,'

> 'Binding herself by Statute to secure
> For all the children whom her soil maintains
> The rudiments of Letters, and inform
> The mind with moral and religious truth.'

This passage has been a good deal spoiled for our generation by Matthew Arnold's chaff, in his essay on Wordsworth, about the bald heads in the dusty air and the jaded afternoon daylight, at the Congress on Social Science.

National Education means anything, it necessarily includes not only primary education, but secondary, university, technological and professional education also. It involves a thinking out of the aims and types of each and all of these, of their place in the system of which severally they are parts, and of the responsibility which should be borne in regard to each of them by nation, province, and municipality alike. All kinds of national education, if any, will need to be brought into subjection to the one influence, assuming that it is desirable that one influence *should* animate the whole. Supposing that a State really wished to control opinion and economic welfare, there is a good deal to be said for the view that the Universities are, of all educational institutions, those which it could least afford to allow to be free, and higher technical institutions those which it would feel it most risky to leave to haphazard growth.

Nor again, in order to keep a grip on the real life of a place of education, is it enough to control the examinations, even if salaried offices for life are attached as prizes to the successful passing of them; nor is it enough to keep a watch by a system of inspection on the methods and drift of the teaching. For, is not educational influence (as distinct from merely temporary thought-transference and from more or less acrobatic performances of skill and memory) usually much less a matter of set lessons, or even of cogent argument, than the outcome of personal example, and of the infection of intellectual interests, or of a sort of riveting power of the will, or, conversely, of repulsion or of contrariness on the pupil's part, or of a generally healthy reaction against views too zealously championed or unfairly expressed? And do we always allow quite enough for the impervious shell which a boy's mind is able to present to anything of the nature of a lesson? Some of our modern educational theories seem to imply that children never miss a lesson, or sleep while it is going on, or forget it when it is over. If these things were so, the human race would seem to be changing more rapidly than scientific reformers have dared to hope.

Yet even if we were to suppose the State capable of really controlling what is taught, and what is implied, and what is learnt (or forgotten) in all schools and colleges, how is its authority going to touch public opinion as it exists among the boys or undergraduates themselves? It would be a difficult matter to interfere with *that.* It would be hard even to get an exact idea of it. And yet in English boarding schools it is perhaps the most potent influence of all. I remember hearing of some parents who gave an immense amount of trouble to themselves (and other people) in choosing the right preparatory school for their little boy. Finally they selected one, on the ground that, while all were excellent, this was preeminently distinguished by the quality and quantity of the food supplied to the boys. "They were quite right about there being lots of food and good food too," the boy himself told me years afterwards, "but what they didn't know, and couldn't ever have found out, was that there was a fixed idea among the boys themselves that the food was bad and therefore that it wasn't to be eaten. We thought it bad form to touch more than we could possibly help, and we used to wrap up our sausage at breakfast in a bit of paper and bury it afterwards." I believe that it would be comparatively easy for the State to get English boys to echo the sentiments, say, of Captain Mahan or Sir John Seeley or any other equally engaging writer on practical political philosophy, but extremely difficult to induce them to turn up their trousers a term before school etiquette permitted that symbolic performance.

Then besides the educational regulations which may be laid down by the State, besides the work of the masters and mistresses in the schools, and besides the mutual influence of the pupils whom they are engaged in teaching, there is a third thing to be considered, namely, the power which upholds the system, and insists on its being rightly and thoroughly carried out—I mean the standard which the parents and the nation expect the schools and all connected with them to maintain.

It is on this that the real working of the system chiefly depends, and the causes for its flourishing in one country, for its flagging in another, and for its presenting a nipped and discouraged appearance in a third, seem to deserve somewhat closer analysis than they generally get. This attitude of the nation towards its schools, the kind of thing it expects schools to do for it, the degree of respect which it unconsciously displays for them—these are evidently the outcome of long years of experience, of training and of habit, and the state of mind which they imply is partly conscious and rational, but largely unconscious and traditional.

However, even when things are at their best, and perhaps especially when they do seem at their best and most mechanically complete, are we not sometimes in danger of ascribing to schools and places of instruction a larger share than they deserve in the work of national education? A school even at its worst is not quite a closed chamber, shut against all outside things. Even when it is drowsy and inefficient, the boys have time to talk. And if a schoolmaster were to set himself, or to be set by the State, to withstand the spirit of the age, how elusive of his efforts, how perversely penetrating, he would find the spirit of the age to be. Currents of outside opinion pass through schools as the wind blows through the wires of a bird-cage, or as the tide drifts through a net at sea. So many influences meet and fluctuate and recur as they weave round each group or generation of us the invisible meshes of the net which holds us together. How little of it is conscious or formulated or prescribed: how much traditional, intangible, impersonal. There is such a repercussion of influence, such a stir of suggestions, so much that falls upon the mind unsought and unobserved and colours the disposition and affects the sympathies. Early influences of home training; reactions against old half-avowed ambitions; drawings towards new points of view; cold currents or hot from this speculative interest or that; some long remembered criticism or harassing doubt; slow

changes in the standard of judging right and wrong in public affairs; the push upon the mind of some strong current in national feeling; some great crisis in national history; an almost paralysing sense of the complexity and intermixture of things; the sense of an invisible conflict being waged all around us, silent, unceasing and for infinitely important issues; deepening gratitude and loyalty to the living tradition of ancient institutions; some new and deeper sense, perhaps, of the meaning of what had been rather read than felt before;—surely, if we mean by national education that which shapes the judgment and forms the habits of life, we must take into account all these imponderable and permeating influences which, far more than any school lessons, touch the imagination and the conscience, and so affect conduct. But I would beg not to be taken to imply a belief that education consists solely or chiefly in a fine web of searching but impalpable influences under which the growing, changing mind and character lie passive and inert. On the contrary, I am only pleading that these subtler forces should not be forgotten or ignored. Direct teaching, the skilful development of interest, the winnowing discipline of exact and pointed criticism, the unfolding of new fields of study—these must ever be the dominant things in school life. But should we not agree that even more important than these, though (under right conditions) helped by these, is the play of the learner's *will*, its strengthening exercise, the informing of it with the necessary knowledge, its gaining power to use its surroundings, but also to rise above these, and if needful to change and reform them?

These things being so, how could we ever think of National Education as a mechanical thing, or a mere affair of codes and buildings and subsidies?

National education, then, I would urge, though it necessarily comprises many material things such as buildings, equipments, books, laboratories, and works of art, and much systematic organisation such as rules for the order of studies, for the

licensing of teachers, for the conduct of inspection and the apportioning of money grants, is, in itself, not a mechanical fabric of codes and subsidies. On the contrary, national education, in the true sense, is a spirit of living influence, a spiritual and intellectual atmosphere. It may, or it may not, partly exert its influence through some mechanism, new or old, either expressly set up for the purpose or by traditional convenience employed for it. When Monsieur Cousin in his report on German education in 1831 incidentally referred to England as "all bristling with prejudices, Gothic institutions and semi-barbarous customs, over which there is awkwardly thrown the mantle of a wholly material civilization," he showed, as one might expect, a real insight into the queer jumble of things through which partly, though only partly, English education in those days made itself felt. But when thirteen years later Mr Horace Mann remarked in the Report of his Educational Tour in Europe that "England is the only one among the nations of Europe, conspicuous for its civilization and resources, which has not and never has had any system for the education of its people," he showed, not only that he was unfamiliar with the history of our social institutions, but that the habit of identifying national education with an organised system of publicly inspected and publicly managed primary schools, mainly for the working classes, and with that alone, had led him to ignore the lineaments of the very important educational fabric which did exist and which—as England was admittedly conspicuous for its civilization and resources—must, if higher education has any bearing on such matters, have been not altogether destitute of influence and success.

III.

But, though I have laid stress on the fact that some of the most penetrating and subtle influences in education are spiritual

and atmospheric, and therefore for the most part unorganisable, and in their operation very little subject to our control, I am very far from meaning that one and the same spirit and atmosphere are to be found in all parts of our English education as it exists to-day. Due allowance, of course, would in any case have to be made for differences in the grade, in the subject-matter of the studies, and in the intensive power, of the different types of schools and colleges. But this being granted, there might nevertheless be (as doubtless in some countries there is) a predominant and recognisable tone in all the educational institutions of a given grade, and to some extent a certain community of ideal and sentiment throughout the whole range of the national education. But it is this which seems to me to be lacking in English education, and indeed always to have been lacking, whether we go back one hundred years, or two. And this discord in our ideals of life does not seem to be the outcome of isolated individualism nor yet of any slackness or of want of supervision on the part of the State. On the contrary, the absence of minute State control and of all-embracing State subsidy and inspection appears itself to be the direct result of this pre-existing and ineradicable conflict of ideals,—a conflict which takes, naturally enough, different shapes in different generations, which periodically dies down and to a casual observer might sometimes seem extinct, but which blazes out, often very suddenly, at all great crises in national life, and then divides a large proportion of the people into two parts, so that you might almost think of them as two nations rather than one.

It is told of the great Bishop Butler that Dean Tucker, as he walked by his side one day in his garden, observed him to be unusually abstracted. At length the Dean ventured to ask the Bishop's thoughts. "I have been thinking," he replied, "what would be the effect if, instead of madness being confined to individual cases, it should be permitted, for the execution of some design of Providence, that a whole nation should go mad

at once[1]." Our severest critics would, I think, agree that it is at any rate true that the whole English people has never gone mad at once. Ours is a country of stubborn minorities, now on one side and now on another. And hardly any services that have been rendered to England are so precious as those which have been the result of tenacity to principle—bristling though it may have been with prejudices—displayed on more than one occasion, and against almost overwhelming odds, by each of the two great sections into which the English nation is apt to be divided. To avoid misconception, I would explain that the two sections which I have in my mind are by no means identical with existing political parties, and indeed that they have rarely been (except temporarily and partially) so conveniently divided. Nor again do the sections in any way strictly follow lines of class distinction. Nor is the division territorial, though parts of the North and of the East of England have more of one type than have most of the South and of the West. But it is a difference, often unconscious till laid bare by some explosion of feeling,—a difference in ideals of life, in attitude of mind, in ways of looking at things, in instinctive sympathy with different types of institutions, in the degree of emphasis laid on particular groups of virtues. And, like some inherited and almost ineradicable tendency, the difference persists from generation to generation of our national life.

Now it is not unnatural that this has been looked upon as insecure ground on which to build up an ambitious fabric of education under State control. On the other hand it seems from another point of view to have promoted what Coleridge[2] called the "balance of the two great correspondent interests of the State, at once supporting and counterpoising, permanence and progression."

A further, and serious, difficulty is that the individuals which compose these two sections of the people are so much

[1] Churton, *Life of Joshua Watson*, Vol. I., p. 235.
[2] *Church and State*, p. 31.

intermixed in point of residence and local concern that it would be impracticable to substitute for the highly organised State system, found convenient in some other countries, a purely decentralised system homogeneous within the limits of each of a carefully chosen number of provincial areas.

And great as is the difficulty when England alone is taken into account, how much is it increased if one regards Great Britain, or Great Britain and Ireland, as the unit, and tries to think of Irish, Welsh, Scotch and English individualities comfortably assimilating themselves to one national system of education. Then, if we cast our eyes still further afield, and try to reach the conception of an Imperial system of education, how greatly is the problem complicated by the needs and preferences of the chief self-governing colonies—Canada, Australasia, New Zealand, the Cape; and how incongruous again are the further elements in the problem—India, the West Indies, and the needs of the natives in different parts of Africa.

The fact is that experience and the accurate observations of men of science have all gone towards showing the immense difficulties in the way of satisfactorily organising national life on the basis of the assumptions which were in many people's minds two or three generations ago. The idea of the advocates of education at the beginning of the century, on the utilitarian side, was that children in the raw were uniform, and if uniformly treated (that is to say, at a day school) would come out at a similar point of view, and similar in attainment, aptitude and character. "Wakefield," wrote Francis Place[1] to James Mill in 1816, "is a believer in innate propensities...and expects to see your John's innate propensities break out presently and form his character....The position I take against him is that the generality of children are organised so nearly alike that they may by proper management be made pretty nearly equally wise and virtuous." Just as the English economists of the

[1] Graham Wallas' *Life of Place*, p. 71.

same period had their idea of the economic man—a notion which implied a certain uniformity among men irrespective of race, background and endowment—; and just as political writers of the school of Tom Paine had in their mind what one may call a political man, who was similarly interchangeable with every other political man and conveniently uniform in responsiveness to appeals to his enlightened self-interest; so there haunts the educational speculations of the same school a phantom which we may style the educational man, from which individual differences seem almost to have been peeled away, leaving a sort of quivering core of faculties behind.

Now the economists, by putting out of account disturbing factors in the problem, led many different kinds of people to attach relatively undue importance to the purely economic factors in problems of industry and commerce. Few things are more striking in the earlier years of the century than the degree of insensibility, or rather the want of vigorous, heart-searching attention, towards the horrors and squalid mischief of the unregulated Factory system, on the part of men and women who, if they had only realised what was going on, would have felt every impulse of their nature going out in search of some moral remedy and State control. There were exceptions of course; but, speaking broadly, the awful significance of the problem was not realised for years by the very men whose sympathies were all against unrestrained industrial development. To some extent, but only to some extent, this is explained by their mostly living far away from the newly developed districts: in large measure those who were capable of effort were preoccupied by other cares; but a deeper reason may have been that Adam Smith had fixed upon them a sort of semi-fatalistic idea that the division of labour is an inevitable accompaniment of all industrial progress, and that as an inevitable accompaniment of the division of labour the man concerned has 'no occasion to exert his understanding,' and so 'generally becomes as stupid and ignorant as

it is possible for a human creature to become. The torpor of his mind renders him not only incapable of relishing or bearing a part in any rational conversation, but of conceiving any generous, noble or tender sentiment concerning many even of the ordinary duties of private life. Of the great and extensive interests of his country he is altogether incapable of judging. ...His dexterity at his own particular trade seems to be acquired at the expense of his intellectual, solid and martial virtues.' These evils were to be palliated, though not removed, by the provision, 'at a very small expense, of the most essential parts of education, namely to read, write and account.' And this would be accompanied by the further advantage that the more the masses of the people were 'thus instructed, the less liable they would be to the delusions of enthusiasm and superstition[1].'

Remembering what reverence is due to Adam Smith's character, and how vast the service which in other directions he rendered to economic thought, do we not feel that there is much to regret in the tone and tacit assumptions of this passage? It had a mischievous influence. Comparatively few people there were, all through those early days of the Industrial Revolution, who spared a thought for the needs of the new populations, rising then in such startling numbers and with such unanswerable claims on national care. The very people whose hearts would have been, under present conditions, most sensitive to their distress, had been somehow or other brought under the spell of thinking the whole black business 'inevitable,' and to be mitigated, if at all, by the spelling-book and the multiplication table. Yet then was the time when institutions should have put forth unexampled efforts to grapple with social problems. For more than twenty years, at the end of last century and at the beginning of this, England was at war on two fronts, and not the least perilous to her real civilisa-

[1] *Wealth of Nations*, Book v. chapter I.

tion was the struggle, so long neglected, with barbarism and ignorance and social degeneracy in the industrial districts of the North, and the rapid increase in the poor quarters of great cities. This national failure in timely sensitiveness to an urgent social danger has borne evil fruit for us ever since. Had not the opportunity been missed, the spiritual and intellectual movements at the beginning of the century might have found a common ground of effort and thus of better mutual understanding, while the new social conditions were still plastic enough to mould into fitting shape, and in time to avert the inconceivable waste of resources which has marked English life throughout the whole century.

But just as the economical writers brought about a partial view of social problems, so did many of the political writers—by leaving out all but the more mechanical aspects of government—lead many people unconsciously to attach undue importance to the administrative and mechanical, as distinguished from the ethical and institutional, elements in plans for political reform. And similarly the educational writers on both sides (though more on one side than on the other), by leaving out of account many elements necessary to the character-forming side of education, and by their frequent lack of insight into the true needs of child-life, led many people to attach an undue importance to mere mechanical routine in elementary education. When the real significance of the omission began to be perceived, it dismayed those who understood that education is necessarily concerned with duty and conduct, and that in order to measure the difference between varying types of liberal, as distinct from technical, education, one must ascertain the attitude of each towards that point in human character which has been called the focus of 'thought, affection and endeavour.'

One of the first to realise the danger of the new movement and to define what was really needed and what were the special difficulties which would be met with in England in

providing the right kind of popular education, was Wordsworth. To him we owe an incalculable debt. And in the earlier years of the century we find in this matter of education, Wordsworth, Coleridge, and what one may call the Burke tradition, ranged against Brougham, Jeremy Bentham and James Mill. These are the two sections, as then divided, to which I referred before. It is true that within each section there were then and afterwards inner divisions and sharp conflicts too. But, speaking broadly, the best minds and hearts in England ranged themselves under one banner or the other according to their instinctive sympathies and their sense of dominant need.

If we steep ourselves in the literature and memoirs of a great movement, such as were the Utilitarian or the Tractarian movements, do we not come to feel that what really was guiding the judgment of the leaders of it and colouring their aims was not so much the formulated expression of their doctrines (that comes later and gradually, and the more precise it is the more certain a signal is it of approaching rupture), as the larger and deeper, though unformulated and only instinctively felt, notions and tendencies behind it? Great bodies of doctrine like that of *laissez faire* proceed from deep-seated and long-standing social causes, and the formulated, codified expression of those opinions always fails in some measure to reflect the indefiniteness of the governing impulse or to expose its underlying assumptions, while at the same time it tends to exaggerate the lucidity of the dominant aim.

This may be said to be true of those who represented the two conflicting ideals about national education at the beginning of the century and at that most critical time when, if ever, some kind of unification might have been possible. Each section lived in a world, in an atmosphere, of its own. A striking proof of this is found in the lives of the two men who were respectively, and during the same term of years, the chief organisers, behind the scenes, of the new Anglican developments and of English political democracy—Joshua Watson and Francis

Place. Both were Londoners, born in the same year, 1771; both left school before they were 16; both were early engaged in trade; the one, a wine-merchant, the other, a tailor; both were men of extraordinary abilities and tact in organization, conducting negotiations, and working for great national objects, through committees and without self advertisement; both were indefatigable, both sincerely devoted to ideal aims, both preferred to work behind a curtain; both had very much indeed to do with the educational developments of the time—Watson with the foundation of the National Society, Place with the early conduct of the British and Foreign School Society; both lived to ripe old age, and the two died within a year of one another. During many critical years of anxious and extremely important work the two must have been constantly within a mile of one another in Westminster. Yet they might have lived and worked in entirely different hemispheres. The outlook of the two men was wholly different. Not once, I believe, is Place's name mentioned in Watson's *Memoirs*, or Watson's in Mr Wallas' admirable life of Place. Had Place had reason to think or speak of Watson, or Watson to refer to Place, I fear that in each case it would have been with some horror at the other's proceedings and without much sympathy for what was present in the other's work and lacking in his own. These two men are really typical of the two sections in the then active English life. Neither section seems in the least to have realised that the other was anything more than, as the case might be, a repulsive temporary phenomenon or the lingering survival of an obsolete superstition. Neither perceived that the other derived from a line of spiritual and intellectual ancestors extending back over two centuries; neither imagined that the other would have, in one form or another, developers of its tradition without break in the succession.

On both sides of the controversy were men of the highest ability and noblest aims. Yet the one side exaggerated the importance of purely intellectual training and the other side

underestimated the extreme urgency of doing quickly whatever could be done to meet the startling dangers of the new social developments. One idealised book knowledge, the other (under the influence of Coleridge's idea of clerisy) idealised the actual performances of the existing Establishment. There was some bitterness and contempt on both sides and much needless, as well as much inevitable, misunderstanding. Both, in the early years at any rate, had a mechanical idea of education, and, as Wordsworth said in 1828, "from not understanding the composition of our nature and the composition of society were misled and hurried on by zeal into a course which could but lead to disappointment." Slowly each side began to perceive the failure of its efforts and the mistaken limitation of its aims. A succession of mediators began to appear—Sarah Austin on the one side, Dr Arnold and Dr Hook on the other—all these, with Frederick Denison Maurice later, carried on in effect the tradition of Burke, Wordsworth and Coleridge. At every point throughout the century when a revolutionary stir has come into the air and when after periods of slumber or fatigue sudden progress has begun to be made in the development of social ideas, the same controversy has begun to quicken. All education really involves the question of conduct and of moral aims. At bottom there is a conflict among us in regard to moral and social ideals. It is this, far more than any difference of opinion on the purely intellectual instruments of education, that has been in this country the secret cause of educational deadlock. The governing fact of the history of the educational struggle in England during the whole of this century has been this instinctive divergence of moral and social ideals—a divergence the depth and significance of which have only slowly been realised, if indeed they have ever been fully realised at all. In former days each party hoped to supersede the other and to foil as the case might be its revolutionary or reactionary plans. And whenever the true nature of the disagreement is suspected, a new danger arises in a disposition

to avoid controversy by leaving out what gives tone and savour to the whole. It will be remembered that De Tocqueville feared that one result of democracy might be 'respectable materialism.'

All through the century, though people have gone on ranging themselves in the main under one or the other banner, the points of view have been slowly changing, revolving almost, so that in some regards the one group has come to stand where the other stood before. And, all the time, the two sides have been carried down stream together in the suck of the current on which both are borne.

For the creation of a national system of education in any true sense of the words there seems to be required either a stable order of society on which to build, or such a moment of ardent spiritual unity as sometimes, though not always, follows a collapse of the outer fabric of national life. Neither of these conditions has been fulfilled at any point in English history during the present century. One struggle has followed another on the most fundamental issue of national life—the struggle between the doctrine of *laissez faire* and the rival theory (so ill represented in modern English thought) of the highly organised, carefully balanced, strongly governed modern State. The victory, such as it was, which *laissez faire* won in England was over the stupidity of ill-deserved and ill-used privileges, not over any serious attempt to organise English society on a scientific basis. It is not improbable that the next and most serious struggle will be between some kind of *laissez faire* on the one hand, and, on the other, the conception of national life which showed itself in one form in the thunder and lightning of Carlyle, and later, in another form, in the too romantic prophesyings of Mr Ruskin, but which is not unlikely to come nearest to success when put forward under the guise of a scientifically organised, firmly controlled commercial State, resting (though under carefully preserved democratic forms) on an oligarchic basis of capitalism, commanding great military and

naval force, buttressed by a system of commercial and technical education appropriate to itself, and kept buoyant by sharing a fraction of its financial interests with large numbers of small shareholders or insurers. In such a struggle, educational reform in a most sweeping and comprehensive sense would be the fundamental issue at stake.

But, though there have been times when that struggle has seemed very near—it was near in 1848 and near again between 1882 and 1885—other controversies have had more direct effect in producing instability of educational aims during the last half century. Among these has been the struggle (which produced the Tractarian movement) between two, or rather three conceptions of the relation of authority to private judgment. This has been accompanied and followed by very serious controversy between the scientific and traditional ideals of life. Commerce, again, one of the most disintegrating of all factors in its influence on social organization, has struggled with the traditional order of English society. Later still there has been the conflict between the forces concerned in Imperial development and those behind English political democracy. Again, partly as a result of missionary and colonial experience, partly as an outcome of the historical and comparative methods applied to social and psychological studies, there has been a noteworthy faltering of conviction as to the principles which really underlay (so far as theorising had anything to do with it) the ideas of democratic suffrage, popular control, majority voting, largely decentralised local government, etc. Child study and man study have emphasised a great many differences and difficulties which were not wholly unperceived by experienced and far-seeing persons at an earlier stage. But it is easy to overrate the part played by conscious theorising in English social developments. So far as the masses of the people have been concerned, practical dissatisfaction (after long patience) with an existing *régime* has been the chief cause of changes, which were desired and approved rather because

they promised hope of relief from practical inconvenience, than because of their conformity with philosophical theories about the citizen and the State.

It would appear therefore that, at any point throughout the century, the idea of setting up a unified and effectively unifying system of national education, though constantly renewed and though put forward by three of the greatest English writers of the century—Coleridge, Carlyle and Ruskin—has never been anything but a chimera. But it by no means necessarily follows that a chimera it will always remain. Nor would it, I think, be possible to defend the position that, on the whole, English education has fared as well during the century as we have any reason to desire. It is true that unnumbered individuals have given up their best years of labour in its service. And we have had Dr Arnold, to speak of perhaps the greatest of our schoolmasters during the present century. The cause of education has called forth an extraordinary amount of personal self-sacrifice. In certain ways it has made remarkable progress. Much has been done for the education of girls and women: the preparatory stages of secondary education have never been so well cared for as they are to-day: wonderful strides, especially during the last ten years, have been made in primary education. And other departments have made great advance. In some parts of the teaching profession there has been a striking growth of interest in such questions as methods of teaching and choice of studies. Institutions no less than individuals have shown that they can adapt themselves to new conditions and anticipate new needs. We have indeed much to be thankful for, and have been mercifully delivered from many imminent dangers. Things are not as bad as they well might have been. To adapt some words of Prof. Huxley's: "If Ormuzd has not had his way with England, neither has Ahriman." At the worst, a very free system has a fairly good side. On the other hand, what an unhappy thing it is that we, the pioneers of the Industrial Revolution, we who therefore, at that

critical time, most needed the bond and discipline and guidance which a national system of education really gives, have had, of all western nations, the least of what such a system could have furnished—and that in many ways we have so wastefully blundered and muddled through this long and critical century, wasting much that we had not foresight or self-control properly to use. And, again, who will not feel the justice of these remarks of Mrs Austin's written so long ago as 1834? "It seems to me," she says, "that we are guilty of great inconsistency as to the ends and objects of education. How industriously have not its most able and zealous champions been continually instilling into the mind of the people that 'education is the way to advancement,' that 'knowledge is power,' that 'a man cannot better himself without some learning.' And then we complain or we fear that education will set them above their station, disgust them with labour, make them ambitious, envious, dissatisfied. We must reap as we sow....The same motives, wearing different forms, are presented to all classes. 'Learn that you may get on,' is the motto of English education." "The result," she concludes by saying, "the result is answerable."

IV.

But in saying that I do not believe that at any point in the century England was really ready for, or would have been improved by, the kind of concentrating and unifying system of National Education to which I referred at the beginning of this lecture, I am far from meaning to deny that such a system has not in itself great advantages as well as great drawbacks. There is, of course, no country in which the extreme type of educational unity has been seriously attempted, but there are approximations to such a system, which is indeed, in itself, an economical arrangement and permits effective use of a minimum expenditure of money, knowledge and effort. It slowly but certainly produces a really learned profession of

teachers. Its organization holds up and holds together a great deal of literary and intellectual interest which would otherwise tend to lose itself in other pursuits, and thus, under certain conditions of thought, the system consolidates a sort of intellectual barrier against various kinds of eruptive disorder from above and below. And in its general operation it tends to be an equalising movement, to lessen the gap between extremes, to do more for the average, than for the exceptional, individual. Perhaps in the process it squeezes out minor originalities, but it is doubtful whether, in association with other related forms of national discipline, such as compulsory military service, it does not produce other compensatory virtues.

On the other hand, if I may venture to express a tentative opinion, is not this, like all big machines, liable to produce too much of a given commodity and to be in danger of flooding Europe with people whose education has been in too literary a groove, and who without being specially fitted for intellectual pursuits have been a little spoiled for other things? By means of an elaborately organised system of higher education, it seems possible to overstimulate the intellectual susceptibility of large numbers of people of mediocre talent, without adding much to the sound stock of critical or practical judgment possessed by the nation. Granted to the full that in all callings there is a growing need for intellectual efficiency and alertness, it nevertheless remains true that there is also more need than ever for sturdiness and independence of individual judgment, and for power to resist whatever be the extravagant intellectual fashion of the hour, especially during a period of momentous change in our knowledge of nature and in our conceptions of the significance and possibilities of human life. A system of education is hurtful if it makes people intellectually impressionable without increasing at the same time their reserve of moral strength. Furthermore rules which shut out from professional careers all who have not passed through a prescribed course of secondary education

tend to attach undue importance to the intellectual achievements of a youth's early years. Again, are we sure that a tendency is wholly good which is in the direction of creating such a well-organised professional society of teachers as to immerse them in a world of similar interests and standards, and somewhat to detach them from opportunities of mixing freely and constantly, and as a matter of course, with all sorts and conditions of other people? The school is only too apt to get a standpoint and standard of its own. It is not an end in itself, but an organ of the incessantly changing national life. And is there not special reason therefore for teachers to keep in touch with men and women of all sorts and of very different kinds of experience and occupation?

I have urged that national education in its true sense is not a matter of schools alone but partly the organised provision of good and tested teaching in all subjects necessary to be learnt, partly the attempt to furnish opportunities for the effective development and training of individual wills, and partly the pressure of a sort of envelope of varied influences acting on the sympathies, the imagination, the judgment and the will, stimulating all alike into activity but, so far as may be, imparting, not identity of belief, or of ideal, or of prejudice, but a certain uniformity of tone to the complexion of the mind, a certain predisposition to conform to a general type. And I have tried to show that, by reason of very deep and ancient fissures in our national life, England has been peculiarly ill-disposed towards the idea of anything tending to give the advantage, either in propaganda or in social opportunity or in prestige, to one or other of certain broadly differing views of life and of national duty. Montesquieu said of the English people that, of all others, it "has best known how to enlist in its service these three great things—religion, commerce and liberty." Whatever be the truth of this observation, it will be agreed that these three things are apt to be disintegrating elements in any form of spiritual or intellectual monopoly.

It is still frequently said that every nation stands for an idea, but it is not easy to define the idea for which England (not to speak of the British Empire) stands to-day—unless indeed it is for the conviction that no single idea is adequate to the consciousness of a modern nation and that what is most needed is protection against outward assault (and in less measure against internal bullying), so as to permit the growth, the interplay, the fusion or reaction of varying ideas and ideals within the compass of the national life. One indeed we are—for defence; but divided still, profoundly divided, in regard to schemes of inner unifying organisation in so far as they might threaten to override with violence, or attempt to obliterate, conscientious differences of faith or opinion. And, therefore, I would venture to maintain that what Emerson called the English duality is, in its truer manifestations and when rightly understood, the essential characteristic of the national mind, and that, though perhaps it is the source of temporary weakness, and, under existing circumstances, of some national peril, our mixture of ideals is the fount of much lasting strength and freshness of mind and sympathy. For is it not characteristic of our most trusted leaders to shrink from extremes, however tempting and effective, and rather to stumble on, at the cost of being misunderstood, often at the cost of much slipshod and unsatisfactory compromise, and at the cost of seeming to attempt to combine incompatible opposites—yet nevertheless to maintain that in the logic of life the middle way is nearest to the truth; that out of all the opposite and apparently conflicting tendencies—freedom and authority, inquiry and obedience, individual liberty and State control, private effort and corporate life—comes the resultant force which best helps us forward to better things; and that, as Aristotle said, "tact and perception, not reasoning, must decide the mean"?

There are some, indeed, to whom this view is repugnant, and whose minds can find no rest except under the fixed

authority of some established rule. Others again are so constituted as to fret against any interference with individual liberty in the sphere of thought, or with communal or sectional independence in the sphere of political action. But I am speaking of the central mass of the English people, and of them it seems true that they instinctively incline to institutions which attempt, in Pascal's words, "the union and harmony of two seemingly opposite truths." Our political instinct leads us to feel that, even in the case of the conflicting tendencies of authority and freedom, balance and combination are not unattainable. How to accomplish such a combination may baffle our powers of constructive statesmanship; but even failure to achieve it leaves us none the less unwilling to regard either extreme tendency as in itself a sufficient principle of wise action. And of no part of our political task is this so true as of that which appertains to national education. Yet the balance, even when attained, is unstable and soon disturbed by the natural growth of new needs. Each generation, in its attempt to restore the balance, has to lay special stress on the one principle or on the other, according to the needs of this or that part of the body politic. In education, for example, it was necessary early in the century to fight against the false claims to authority put forward by some who spoke on behalf of the Established Church. In our own time it is rather on the value of a strong central authority that stress needs to be laid. Yet neither in complete freedom from central control, nor in any extreme form of State or municipal monopoly, are we likely to find the right balance of educational policy. Both elements, skilfully adjusted and ever in course of readjustment, are necessary, if we are to secure educational progress according to modern standards and yet retain educational freedom. But there is no ready-made formula, by help of which our statesmen can fix the balance. They have to find it as best they can, cautiously feeling their way with such help as is given by the lessons of history by

administrative tradition, by foreign experience, and by their own practical knowledge of the character and predilections of the nation which they serve. Rules and precedents help up to a certain point, but at every great crisis in national history (and the present is a crisis in the history of national education) we reach the limit beyond which the help of old rules cannot go.

Yet I am far from intending to argue that a mush of muddle-headed compromise and of unprincipled concession has any claim to be regarded as the golden mean. Nor again is the true *via media* to be marked out by any mechanical calculation of the half-way point between two conflicting extremes. On the contrary, any such intermediate measure may miss gaining that part of the truth which lies with each of the two extremes. It may sometimes be necessary to combine two apparently opposite and conflicting tendencies, and to hold them together in order to gain an expression of the whole truth. But, in the main, Richard Baxter's words hold true, "Greater light and stronger judgment are usually with the reconcilers than with either of the contending parties." Yet nowhere is a surer purpose needed than on the *via media*, along which the traveller feels his way, exerting every intellectual gift in judging the changing indications of safety and danger, but always conscious that, indispensable as is the utmost intellectual exertion, it rarely suffices as a guide through the perplexities and shifting perils among which he has to pass. Something of deeper origin and of more subtle power than conscious reasoning is needed by him as a guide. New problems arise before him not contemplated by the writers who have summarised for him the experience of the past. Just as the moral genius pushes his way through the new conditions which confront him, and by means of this exploration furnishes the experience out of which philosophers may revise old rules of conduct or formulate new ones: so the political genius of a great statesman, interpreting (and in turn

supported by) the political instinct of his nation, has to feel its way through problems which are so embryonic and involved that no man may with confidence predict their final issue.

In conclusion I would submit that, under modern conditions and in the case of such a country as our own, the part of the State in national education is not to stand aloof altogether, as some extreme individualists would hold: nor, as Adam Smith contended, to provide primary schools and ignore everything else: nor, as John Stuart Mill suggested, to maintain a system of schools of its own as one among several competing systems; but rather to draw toward itself, to inspire, to stimulate, and (when needful) to aid, each and every type and instance of efficient and needed school, while absorbing, controlling, crushing none; aiming, that is, not at monopoly, but at comprehensive federation of schools and colleges; at strengthening educational freedom, not at any restriction of it; at self-criticism, not at the discouragement of criticism; at the planning, and record of careful and systematic experiments; at the very liberal encouragement of educational, psychological and hygienic research of all kinds, in all types of schools, and those not in England alone; and at the wide diffusion, among all concerned, of the accurate but varied and outspoken observations thus secured, with a view to the development and guidance of a well-informed and skilfully observant public and professional opinion.

But still more earnestly would I plead that in all plans for education, because education is one of the spiritual aspects of the national life, there is need for the utmost circumspection in adjusting the claims of humane studies and of physical science, as well as those of liberal culture and of professional training. We need constantly to remind ourselves that the rising generation has not to be prepared merely to pass examinations, or for an imaginary life of ideal ease and intellectual recreation, nor yet on the other hand merely to play a boisterous part in struggles for private gain; but that the chief object of education

should be, while fitting boys and girls for the tasks and duties of practical life, to preserve intact for them, amid the repeated assaults of claims and cares which arise from the fret of daily work and from the results of philosophical inquiry and from the play of competition far beyond individual or national control, as much as may be of childlike faith, of intellectual reverence and courage, and of gaiety and truthfulness of mind. And may the enlightenment afforded by our national education be

luce intellettual piena d'amore,
amor di vero ben pien di letizia,
letizia che trascende ogni dolzore.

CHAPTER XIII.

OUTLINES OF THE DEVELOPMENT OF EDUCATIONAL IDEAS DURING THE NINETEENTH CENTURY.

BY

PROFESSOR W. REIN, Jena.

A CONSCIENTIOUS man will from time to time survey his past work critically, in order to satisfy himself whether he has made progress or not. Similarly should a nation criticise itself, and inquire if it has increased the goods which it inherited from its ancestors; if it has strengthened the factors, which are of value for its existence, and if it has in consequence thereof advanced a step. If a nation is sound and healthy, it will not lack in critical insight. Only a degenerate community refuses to give an account of itself, because it fears that it may have to face a deficit. A sound and progressive people will welcome the admonisher, because it wishes to learn how to overcome its weakness; but a dying nation destroys the unwelcome prophet. The example of Socrates will illustrate this. He might have escaped death, if he had promised to be silent. But he met this possibility with the proud words: "My love for you, oh Athenians! is great; but more than you do I obey God." And a similar word echoes from the Gospels: "We ought to obey God rather than man." The death of Socrates and the death

of Jesus are points in human history whose very value consists in the fact that they are not mere epochs of history.

Such points as these put mere external points like the beginning of a new century in the shade. The beginning of a new century need therefore, however, not be regarded as being unimportant. And for this reason, that it gives the individual just as much as the nation an opportunity to turn their attention inward, and—so to speak—make up the accounts of the period gone by philosophically, fairly and truthfully.

Looking backward in this way, the question arises involuntarily: What will the new century bring us? Full of presentiment we try to look into futurity. We endeavour to throw light upon the dark future by means of our knowledge of the intellectual tendencies of the past decades. We even see those things realised in the future, which the present has not yet fulfilled. The value we place upon the past and the present determines our considerations of the future.

A hundred years! A long interval of time, if we count each single step. But if we consider the chief tendencies and turning-points, the long distance is traversed very rapidly. We can master the past by omitting all the inessentials. Penetrating deeper and deeper into the connection of things, our mind looks for the chief points which form the contents of the century. And these also may be unified, reduced to a formula, so to speak, for the purpose of seizing hold of the characteristic feature of the century. This was done with the eighteenth century, which has generally been called the Century of Rationalism, sometimes also that of Pedagogy. Attempts have already been made to find a formula for our century. Schopenhauer called it a philosophical century, because he considered that it was ripe for philosophy, and therefore needed it. Heinr. von Treitschke indicated it as the richest century of modern history, because it reaped the crop of the Reformation. Kuno Fisher sees in it the century of criticism, because it destroyed myths, though it also created some. To some it is the century of the

natural sciences and technology; to others again, it appears as the national era, which has witnessed the resurrection of a series of national states, both great and small, which have not only changed the political map, but have produced a peculiar shifting about in the life of nations.

All these formulæ contain a certain amount of truth; but it may well be questioned if they have struck the fundamental note of the whole. It is very doubtful if we can at the present time sum up in a formula the infinite variety and wealth of the mental life of three generations. And for this reason, because a feeling prevails, negative in kind but common to all, which owes its origin to the struggle of conflicting views—the feeling that we live in a period of transition. Certain indications point to it: a want of completeness and adjustment. We feel that we are in the midst of a development not far from its beginning, and presumably far from its end.

Our time is neither fish nor flesh. It wavers between empiricism and spiritualism, between the liberalism "vulgaris" and the weak attempts of senile reactionary movements, between autocracy and anarchism, between declarations of infallibility and desolate materialism, between the adoration of the Jews and Anti-Semitism, between artistic idealism and naturalism, between the cultivation of exquisite operatic music and naïve popular melody, between the political economy of millionaires and the politics of the proletariat.

Our time is consequently incomplete and immature. It were certain of condemnation, if it were at all permitted to separate a period of time from its historical connection. Whoever wishes to understand the essence of the nineteenth century must endeavour to understand it from the intellectual development of the past.

A period of transition is not an epoch of truth, but rather one of dark striving. It is in connection with this fact that our age has also been called a time of great yearning, the yearning for something new. But no one knows what this new

is to be. And whoever undertakes to describe it, learns, as soon as he tries to fill in the details of his description, that his outlines become confused, and his colours faint. The picture of the future, shrouded in mist, vanishes, as soon as one imagines oneself near enough to touch it. Let us therefore endeavour to grasp the chief features of the 19th century with reference to its educational ideas.

The life of a nation is a connected whole, made up of forces developing from within itself and ripening organically. These forces support and at the same time oppose one another. Progress arises out of this support and opposition.

Nowhere does this appear more clearly than in the realm of education and instruction which forms an essential part of the whole life of a nation. For we find the vital ideas of an age focussed in this realm, namely the practical-scientific ideas, the scientific, the moral, and the religious ideas. All these ideas desire to help, to promote, and to advance education. But as they neither agree nor harmonise with one another, a struggle arises, and education, standing right in the midst of life, is drawn into this struggle which arises from the contest of conflicting opinions.

We may both welcome and regret this; welcome it, because educational matters are a part of the mental development of the people; regret it, because they are dragged into religious, political and economic controversies.

Education and instruction require a certain calmness for their work. The waves of life come up to the threshold of the school, but they must not pass the threshold lest the work of the school be disturbed and injured. How are we to escape from this dilemma? Education and instruction forming an important part of the life of our people and sharing in all that agitates the world, and yet demanding peace apart from the turmoil of the world so that it may thrive.

A solution may be found in this formula: Whatever agitates the adult world, penetrates the realm of education and

instruction, nay, must penetrate it, or education becomes antiquated and fossilised. But it must not penetrate directly and immediately, but at a certain interval of time, and by means of the various school-organisations. This will give protection against undue haste. Education and instruction will partake of progress without surrendering themselves immediately to every impression which fashion or a transitory mood drives like a bubble to the surface. The ideas of the adult world must become clarified before they may be allowed to influence the education of the young; the truth of the vital ideas must become recognised, before these may be allowed to determine the younger generation. Thus calmness and continuity of development will be secured; development will not take place by fits and starts, but will proceed quietly and steadily; the threads connecting us with the past will not wantonly be torn, but will be woven into a web containing no useless material.

Such are the thoughts that occur to us as we survey the development of education and instruction in Germany during the nineteenth century. We do not survey this development, however, merely for the purpose of understanding it and of enriching our store of knowledge, but *sub specie aeterni*, that is to say, so that we may learn and obtain permanent principles from it. History is the instructor of mankind, and education also can learn valuable lessons from it, if it endeavours to penetrate into the spirit of the development. And though the latter is chiefly determined by factors not controlled by man, there can yet be no doubt that the resolute and persistent will of man can influence the destiny of a people.

We will therefore to-day survey the development of those intellectual tendencies that have swayed the German nation during the nineteenth century in order to obtain from this retrospect a guide for the future organisation of educational work and systems. Other countries besides Germany may also, from a comparative consideration of native develop-

ment, see questions arise, the study of which might prove fruitful.

1. No State shows greater differences between the beginning and the end of the century than Germany. Japan might perhaps bear the comparison, since it also has experienced profound changes during the last decades. At the beginning of the century we see Germany dismembered and subjected by France after the unfortunate battle of Jena in 1806. Napoleon the First had broken the system of Frederic the Great. Prussia had gone to sleep on the laurels of its great king; the Corsican Conqueror gave it a rude awakening but one that was beneficial in its effects. At the beginning of the century people said that the Germans had no fatherland; theirs was in the clouds, in philosophy and in poetry. But through the struggle for independence the Germans came suddenly into contact with hard reality. The Napoleonic wars for freedom saved Germany, and from these wars it gained the imperishable ideal of the unity of the German principalities, the re-establishment of the German Empire in new forms. Decades, however, were to pass before the realisation of this aim. The aim arose during the wars with Napoleon I.; it was realised through the struggle with Napoleon III. At Versailles in 1871 Germany once more obtained a central government, the German Emperor. Division, the misfortune of Germany, was forgotten. With united strength the nation was able to take its share in the work of civilisation. A great change has come about. The nation, awakened from philosophic speculations and mystic dreams, began to feel its strength grow from year to year. Patriotism was revived and became embodied in the person of the German Emperor.

In this way does the national political picture at the end of the century differ from that at the beginning. At the beginning we behold division, impotence, feebleness; at the end an awakened spirit of unity, pleasure in and strength for work, for progress and for friendly rivalry with other nations. All this, however, was made possible only through quiet and unobtrusive

work in the schools, work going on throughout the century far away from political life. The forces which the nation required were nourished in the schools; in them the ground was prepared for the success which led up to the realisation of the aim; in them the weapons were forged with which the battle for progress was fought. The activity continues even at the present time; and since the re-establishment of the German Empire it bears a national imprint.

2. In social relations also do we find a remarkable difference between the beginning and the end of the century. At the beginning we find German society still bearing the stamp of the Middle Ages. The majority of the inhabitants of Germany are engaged in agriculture. The great landowners, the nobility, take the lead. They are nearest to the throne, they are free, and they take the highest positions in the State and in the army. The citizens in the towns also are free, but not having any political power, they follow the lead of the aristocracy. The lower peasants are not free. It was only in 1809 that "villanage" was abolished, which bound the peasant to the land and the landlord. At the end of the century we behold an entirely different picture. An agricultural state is changed to one engaged in industrial occupations. Thirty millions are maintained by industrial pursuits, while agriculture supports only twenty-five millions. Germany has enrolled itself among the industrial nations, and has thereby taken upon itself new tasks. A new estate, the fourth, the working class, has grown up in Germany, and it also has tried to obtain a position in society. The State has recognised its claims and has improved the material wants of the working classes by means of social legislation. Government gives about £50,000 per diem towards the alleviation of the misery and the improvement of the lower classes. At the same time the State does not neglect their education. They also are to partake of the ideal goods of the nation, the arts and sciences, though within the limits imposed upon the mass of the people by

capacity and occupation. Much trouble and labour has been expended upon the development of the elementary school system. Great tasks are, however, still before us, and the new social grades supply us ever with stimulus for new tasks.

3. Science and Philosophy also show sharp contrasts at the beginning and end of the century. The first half of the century stands under the banner of philosophy, the second half under that of the sciences and technology. The philosopher Kant ushered in a philosophical era, which, with the aid of Fichte, Schelling and Hegel, produced a movement extending far beyond the borders of Germany. The movement reached its culminating point in Hegel. He wished to prove that the psychological development of consciousness and the intellectual development of humanity were identical. In Hegel's philosophy mind becomes the master of nature, and history the master of the individual. Hegel's philosophy, however, aroused the ever-increasing opposition of the advocates of the natural sciences. The sober and cautious thinker Joh. Fr. Herbart, and Schopenhauer, the philosopher of pessimism, had opposed the "fashionable philosophy" of Fichte, Schelling and Hegel, unsuccessfully, however. But what they had been unable to achieve, the second half of the century accomplished. Philosophy lost its predominant position, and Science with methods of exact investigation celebrates its triumphs, so that the nineteenth century has been proclaimed as the age of the natural sciences.

The schools also became involved in this process. The elements of culture, which owed their origin to a classical age, were steadily losing their renown and splendour, while the science subjects increasingly gained in charm and attraction. The humanistic subjects maintained their preeminence over the realistic subjects only with the greatest of difficulty.

4. Closely connected with this is the fact that at the end of the century realism of deed finds preference over idealism of thought. As long as Germany was not a State, it could not

develop a political and national conscience. Culture and attitude of mind were individualistic. Man and not the citizen, not the nation, was the centre of interest. Men strove to obtain the praise of a "citizen of the world" rather than that of a zealous patriot. And yet poets and artists were occupied in building up a great German fatherland, the great intellectual empire of the German nation. Weimar was the capital, Schiller and Goethe the chancellors. It was due to them that Germany, intellectually at least, became a nation. Then came the great realist, Bismarck, who welded the various German principalities into a political empire. He added iron to the German blood and thereby raised the worth of the people. And now other work besides that of art and poetry was taken in hand, industrial work, problems of the real world were attacked, that is to say, those of commerce, industry and technology, which are so necessary for the existence of a State. In consequence of this the State proceeded to develop and perfect the technical schools as an organic part of the general school-system.

5. Love of music and interest in religious questions continued throughout the century as expressions of emotional life. But in this field also far-reaching struggles and mighty changes took place. We need only remind ourselves of the names of Richard Wagner and David Fried. Strauss. These struggles, however, do not affect the core of German life, that is to say, their devotion to the realm of sound, and their faith in a spiritual realm of love and justice, such as was given to the world by Jesus of Nazareth. Richard Wagner's musical dramas infused new life into German antiquity, but added to it a view of life rooted in Christian soil.

It has been said that the fate of Christianity will be decided on German soil, soil which produced Luther, the reformer of the Church. Ever since his time the battle between the catholic and the reformed conception of Christianity has been raging. The former fights under the authority of the Church,

and its strength lies in the fact that it is a close organisation. It holds out a strong hand to the vacillating soul and offers a shelter to those who surrender themselves to her. Subject yourself to her authority and you will find salvation; you will rest in God. On the other hand we have the example of Luther. The Church does not and cannot give peace of mind to man; for it is the work of man. The Gospel together with man's freedom of conscience is the sheet-anchor of existence. But how are we to conceive the Gospel? In this question the whole subjectivity of the German soul is to be found. Every one does and must conceive it in his own way. But, how is the religious community to exist, if that is so? That is where the struggle comes in. The Protestant Church also has need of a formulary. But how is this to be reconciled with the religious conviction of the individual who lays claim to the freedom of a Christian, and constructs his own religious world? The struggle rages hither and thither. The Protestant Church from Schleiermacher to Ritschl loses in power and influence the more it insists on a formulary. But Christianity makes itself felt as an ethicising power in political life, creating great social legislation as a proof that the spirit of neighbourly love is not bound up with ecclesiastical forms and empty dogma.

Instruction also has participated in these movements. Music has been zealously cultivated in German schools since the time of Luther, who was himself a lover and promoter of music. But the question of religious instruction has affected the German schools even more. According to tradition, going back to Luther, religious instruction has been assigned to the school; only confirmation belongs to the Church, although the supervision of the religious instruction is allowed her. This accounts for the fact that the method of religious instruction has been worked out far more by laymen, the teachers, than by clergymen. The teachers, with their knowledge of the general laws of didactics, have attempted to adapt the religious instruction to the development of the child's mind, and to make it an

effective means for mental development. They maintain that instruction in religion is an important element in the education of the young and that it must therefore be assigned to the teacher, who is responsible for the development of the young.

6. The educational movement has also been very active during the nineteenth century. Herder, Schiller, Goethe, Fichte and Kant may be counted as belonging partly to this century, and they are important not only from a literary-philosophical point of view, but especially from an educational. Human nature loves to cling to personalities which embody ideas. Names signify eras; and the nineteenth century, from an educational point of view, is dominated by the names of Pestalozzi and of Herbart. Both are to be found at the beginning, and both dominate the end of the century. Of Herbart we can say, that his works and his disciples obtained for him, after his death, an increasing amount of influence in moulding the educational world, an influence which was denied him in his lifetime. In this he shares the fate of Schopenhauer, whose chief work appeared in 1818, but whom the spirit of the times only permitted to become a force fifty years later. It was otherwise with Hegel, who fully enjoyed his fame during his lifetime, but whose influence we may consider practically ended in the second half of the century. It is again otherwise with Pestalozzi. His life is full of vicissitudes; yet in spite of many a shipwreck he enjoyed during his lifetime the worship of all classes of society, high and low, worship such as mortals rarely receive. The noble Queen of Prussia, Louise, longed for nothing more than to hasten to him and thank him in the name of humanity. Only Napoleon the First turned away from him bored; there were more important things to be done, he said, than the learning of the a, b, c. But Napoleon and his race have gone; on the other hand, the 12th of January, 1896, the 150th anniversary of the birth of the noble Swiss educationalist, showed clearly what influence Pestalozzi still exercises.

Herbart and Pestalozzi supplement one another in a happy

way. Pestalozzi is the man of intuition, of enthusiasm for education and for the improvement of the people. Herbart is the calm inquirer and exact worker, well equipped with the instrument of scientific method, the first man to sketch a system of education founded upon ethics and psychology. Both are profoundly religious men, akin to Kant in their deep ethical conviction, men of a free and wide view of life. The one devotes his compassionate love to the education of the poor and oppressed; the other is destined by education and surrounding to influence the youth of the upper classes. This difference equalised itself considerably in the course of time in this way: Herbart's ideas became more and more applied to elementary education and helped to realise Pestalozzi's views; the secondary schools, however, would not admit the pedagogy of Herbart, did not appreciate Pestalozzi, and relied entirely upon the leadership of the school-bureaucracy. In this latter, educational tendencies no longer assert themselves, especially since the immediate influence of Pestalozzi (which was very great in the time of Baron von Stein and Wilh. von Humboldt) has decreased; instead of them we find partly theological, partly philological and humanistic tendencies. Thus the Pestalozzian-Herbartian spirit wanders through the century, at first rather lonely and confining itself to small fields, but gradually extending its field of operation and advancing victoriously. And this is due to the fact that it was bound to come into touch with the chief tendencies of the century, and come to an understanding with them. How this was done we can see if we survey rapidly the chief intellectual tendencies of this century, with special reference to the principles of both Pestalozzi and Herbart.

The eighteenth century left its successor a rich inheritance; that is, three great views of life: rationalism, classicism, and romanticism. These three dominate the first half of our century. What has become of them? How do their educational representatives regard them?

1. Rationalism dies on account of its mediocrity, its shallowness, its insipidity and its want of historic perception. It believed it had discovered the principles and rules of religion, the State, law, art and poetry, and with these it presumed to be able to become the master of everything, of history and of morals. But just when it had thought it had reached its goal, it was conquered, and not by an outside foe, but by the greatest of its sons, by Lessing and by Kant. The philosopher of Königsberg overcame it by destroying its metaphysical sophisms; and Fichte, in his witty but blunt essay "The life and peculiar opinions of Fr. Nicolai," overcame the last representative of rationalism. In 1811, when Nicolai died, the leading world of thought had passed through this phase, which he had defended with more courage than judgment. But it was by no means dead; since the whole crowd of mediocrity, who found the philosophy of Kant too difficult, and the theology of Schleiermacher too profound, paid homage to a vulgar rationalism which flourished on the soil of politics in the form of a vulgar liberalism.

Pestalozzi and Herbart also belonged to the period of rationalism; but under the leadership of Kant they passed beyond it. Both are related to Kant in a similar manner; for both obtained from him that which had the greatest attraction to them as educationalists, namely, the ethical foundations, and especially *that* ethics which makes a determined stand against egoism, eudaemonism, and utilitarianism.

2. The most successful opponents of rationalism, at the beginning of this century, however, were Schiller and Goethe. They, in conjunction with Fr. A. Wolf, the philologist, and Wilhelm von Humboldt, the statesman and a lover both of philology and of poetry, introduced a new movement, classicism, a new renaissance of German intellectual life, also called the new humanism. They believed they had found the ideal of aesthetic culture in its most perfect form in Hellenism. It is difficult for us to-day to realise what Greece and especially

Homer meant to these men. About the year 1800 this classicism was the privilege of a few highly cultured people. It was thoroughly aristocratic. It was only after W. von Humboldt undertook the direction of the Prussian Education Department, that classicism became a part of German intellectual life, by becoming incorporated, first of all with the University of Berlin, and then in principle with the "Gymnasien." Humanity was the watchword of Herder; and education for humanity the aim of the New Humanism. Artists and poets were to be the instructors of mankind, were to effect that each human being should develop into a lovely individuality, into a beautiful soul. In the second half of this century there arose a formidable opponent of this classical idealism, an opponent who tried to thrust it from our secondary schools, that is to say, a REALISM, sprang up, growing stronger and stronger with the development of the natural sciences, and the resurrection of national life. The quarrel between the "Gymnasien" and the "Realschulen" became at times very fierce.

What position do Herbart and Pestalozzi occupy with regard to this movement? Both are closely connected with it, but each in a different way. Pestalozzi considers the aim of education to be "the development and education of humanity from its own centre." But he did not wish to limit this development of the inner forces of human nature to individual classes of society, but he wanted that even the poorest and lowest should have a share in it. And so he becomes the creator of the elementary schools. Herbart was not hostile to this creation; but his own education and his entire bringing up drew him nearer to the education and instruction as it was given in the humanistic Gymnasium. He was convinced of the importance of Homer; he wished, indeed, to place the *Odyssey* at the beginning of the synthetic instruction of the Gymnasium. His theory and practice belong to secondary education; but they are inspired by the same spirit that moved Pestalozzi.

It is for this reason that I said that both men supplement

one another. It is to be regretted that the influence of Herbart upon the organisation and the instruction of secondary schools has been very small, while Pestalozzi's influence upon the lower and middle schools has been very great. But the importance of Herbart has become greater in the course of this century, inasmuch as the Pestalozzian spirit protected the educational movement against sterility and forced the educational institutions to place themselves upon a scientific basis, that is to say, to go back to ethical, psychological, and physiological presuppositions.

3. Both men take up totally opposite positions with regard to the third view of life, romanticism, which sprang up at the beginning of this century, side by side with classicism. In the year 1800 romanticism was the most modern of views, and together with Kant and Goethe ruled over the intellectual world for a very long time. Romanticism was dangerous to mental life, partly on account of licentiousness of thought and life, partly because it indicated an ominous step backwards. Neither Pestalozzi nor Herbart was likely to be involved in such dangers, especially as the romantic movement emphasised the individualistic feature.

Rationalism also, it is true, endeavoured to free the individual from the bondage of faith, authority and morals, and to direct him to his own judgment. The classical ideal of the New Humanists was also individualistic, especially as this ideal was at the same time aristocratic. In romanticism, however, the right of individuality became extravagant and distorted. The power of the individual, uncontrolled by custom and by moral law, was to exhaust itself in the unrestrained freedom of its own emotions and enjoyment, in a frivolous game with everything that was great, noble and immovable in life. In romanticism, people became cynical and aristocratic at the same time. Here was a spirit, far removed from the earnest and deep conception of life, in which Pestalozzi and Herbart found satisfaction. Both were filled with a feeling of

responsibility, such as the educator of a people has and must have, and without which the educator easily becomes a traitor to the welfare of a people.

It is surely not unnecessary to dwell upon this at the end of the century, especially if one notices that the commercial spirit begins to invade the domain of education. We can still fight against it, as the spirit of Pestalozzi and of Herbart is still alive; and we shall be able to fight this enemy as long as the memory of these men is kept green, and as long as their works will be read.

Their vitality is proved by the fact that they were able to maintain themselves throughout the century, while so many others were transitory and fluctuating; it also speaks for the susceptibility of those who devote themselves to the ideal career of an educator. The pursuit and development of their ideas is, without doubt, a happy omen for the coming century.

Men worked zealously to perfect the theory and practice of education on the lines laid down by Herbart and Pestalozzi, by specialising on special topics such as the psychology of child life, physiology and hygiene, the religious and ethical development, the method of teaching the natural sciences, without losing sight, however, of the great comprehensive ideas. Everywhere we behold ardent and promising work.

More striking even than the advance made on the theoretical and scientific territory of education, is the progress made in those matters which belong to the external side of education. If we compare the end of the century with the beginning we notice a striking difference. What a contrast there is between the school-buildings and the school-furniture of our own time, and the plain and even unsuitable accommodations of the earlier decades! How much has the material and social position of the teacher improved since the beginning of the century! What achievements have been made in the practice of education, and how actively the work is being carried on! And yet, even here, in spite of all that has been achieved, there

is no rest, no satisfaction. Here also we feel that we live in a period of transition, that the best is still before us. The educational movement takes great aims with it into the new century, aims which have grown out of the various spheres of popular instruction. Let us begin with the general principles, and gradually ascend from them to the highest forms of the organisation of instruction.

If we survey the educational activity of the nineteenth century, we observe that the work is twofold, internal and external. The internal work consists in perfecting the method of education and instruction, to endeavour to make the results correspond with the aim. The external work consists in perfecting the framework of education and instruction. The first is the work of the educationalists and the teachers; the second that of the statesmen and the clergy. Upon the latter devolves the care of the external organisation of the entire educational system, while the former take care of the internal work of the schools. But both, the external forms and the inner activity, are closely related. Not that the spirit is dependent upon the outer form. A great teacher can do good work even in a poorly equipped school. But there can be no doubt that a good school system, well provided with all that didactics and hygiene require, assists the work of the teacher, so that it removes difficulties and obstacles for the mass of the average teachers, and creates normal conditions for their work.

On this account we meet with constant endeavours to solve the problem of the organisation, the administration, the supervision and the equipment of schools. These problems concern, of course, the statesmen in so far as they are questions of public administration. And we find therefore that the political parties concern themselves with them, without, however, contributing much towards illuminating and solving these problems. And "confusion becomes worse confounded," because the quarrel between Church and State, which became so fierce in the year 1870, has also affected educational questions.

The central point of the dispute is: To whom does the school belong? To the family, to the community, to the Church, or to the State? All these are interested in the school. The problem is: Can their various interests be united by a just consideration of their various rights and duties?

In Germany the problem was solved by adjudging the schools to the State. The school is a "politicum"; it must educate citizens of the State. Therefore it must have compulsory education, which goes back to the time of the Reformation, but which, in Prussia for example, became effective only in the year 1717. Compulsory education is closely connected with compulsory military service and manhood suffrage.

Though educational matters have an individual foundation, they are a part of the social whole; and this becomes better, the further and the deeper education extends. It is for this reason that, according to German views, the State, which embraces politically the social whole, is and must be master of the schools. Educational matters, just like all other public affairs, must have a central head, if they are to be carried on systematically and if they are to flourish. The State is the master of the schools, but not the tyrant; wherever it is the latter, it will do great harm to education. For the educational work needs freedom for its life and for its activity, elbow-room to give legitimate individual tendencies an opportunity to exist. There is a danger that the master of the schools may try to get too much power, may desire to become omnipotent, not because he desires power for its own sake, but because he believes that, by having it, he can give the children the best there is. In order to meet this danger, that is, the danger lest bureaucracy may become the controlling and the determining power, all the others who are interested in the schools, that is, the family, the community, the Church, must participate in the rights and duties of the school. Wise decentralisation will moderate the rigour of the central authority. The latter may organise,

supervise, see that the institutions fit into one another and arouse and nurse forces; but it cannot create these. That is where its limits lie. It needs cooperation, and the organisation of this has already been taken in hand. Thus, not the Empire, but the individual states must have the care of the education and instruction. This is the case in Switzerland and in the United States of America. And in this way we shall obtain individuality and rivalry which are a guarantee for progress. But in the separate states, which may be considered as centres of the inner organisation and as such justify their existence, centralisation and decentralisation may be united in the right manner.

1. The family has the first claim upon education and instruction. The children are its dearest possession. Its highest and noblest task is their education. The success or failure of the education affects the family before all others. The family, therefore, has the first claim to pronounce what the organisation of the education and instruction of its children is to be. But the children gradually pass beyond the family; they become independent and take part in the public work of the community and the State. The community and the State, therefore, also have definite claims. For the work of civilisation flourishes only when the new generation obtains a suitable preparation for the various branches of the work. In this way education and instruction owe their origin to the necessities of the family, and yet, at the same time, are matters of public concern. In order that the family may have its share in the organisation, it must have representatives on the local authorities, which are the lowest of the educational bodies, and take charge of the affairs of the schools in the separate communities, villages and towns.

2. The communities, considered as a collection of families, organise the school-boards. Their jurisdiction extends over the school-buildings and their equipment, the selection and payment of the teachers, the supervision and care of the children, &c.

3. To the State belongs the superintendence of the schools. For this purpose it appoints various authorities:

1. The district authority.
2. The provincial board of instruction.
3. The department of public instruction.

Besides these there are the various school-synods, the corporate representation of the families and laymen who are especially interested in education. In conjunction with these the State regulates the exact cooperation of all the various factors concerned in the school-system, and thereby secures unity. Similarly the State regulates the finances and sees that each community raises a proportionate amount of the necessary means.

4. The Church gives up all special claims to the superintendence of the schools, except the supervision of the religious instruction. But even in this the independence of the school system of the State does not permit a direct interference; the Church must act indirectly through the school authority. The Church can have its share in the administration of the schools through the local authorities, to which clergymen can be elected.

I have given here the chief outlines to show how centralisation and decentralisation must go on jointly, if anything effective is to be achieved. On the one hand we find freedom of movement and independent cooperation on the part of families and communities; on the other hand, the organisation of the State necessary for holding the various forces together, and for seeing that these are exercised properly.

In Germany we have not yet reached such a just adjustment; for although education has been freed from the trammels of the Church, it has, on the other hand, been enslaved by the State. The latter regulates school affairs solely by its own authority. In the case of elementary education Prussia has done this twice in the course of the century: in 1854 by the "Prussian Regulations," and in 1872 by the "General

Provisions." Here it is remarkable to observe how the school becomes dependent upon political tendencies. The "Regulations" of 1854 breathe a reactionary conservative spirit, which gained the upper hand after the Napoleonic wars, when the Government feared independent thought, and was especially afraid of the German universities. After the assassination of Kotzebue by a student, after the revolutions of 1830 and of 1848, it was thought that the safety of the State could only be maintained by repressing the desire for education in the lower classes of society. These "Regulations" were abolished in 1872 by a Liberal administration, which, in its struggle with the Catholic Church, wished to set free the forces of culture. The "General Provisions" of 1872 are still in force; they have been the cause of much progress in the system of elementary education and in the training of teachers, and also in the better equipment of the schools and by a freer conception of educational questions. They have cleared the way for progressive popular education, and have enabled even the lowest in the nation to have a modest share in the achievements of science and art.

The secondary schools of Germany, though further removed from the influence of politics than the elementary schools, were on the other hand influenced by theology and philology, the scientific tendencies at the time in being. As the teachers came chiefly from the universities, it is natural that they introduced in the higher schools those conceptions which they had gained at the universities. Now our universities during the first half of the century were entirely under the influence of the New Humanism. Lessing, Winckelmann, Schiller, Goethe, Fr. A. Wolff and Wilh. von Humboldt had rejuvenated the ancient world. The study of Greek spread, and Greek became of equal value with Latin. Greek and Latin formed the centre of the instruction given in the Gymnasium. German, mathematics and the natural sciences were thrust in the background. The Gymnasium was the highest and the most aristocratic of

the schools. Whoever obtained the leaving certificate of this school found admission to the universities, and thereby to all the highest professions. This condition of affairs could only last while science on the one hand and industry and commerce on the other were still undeveloped. As these gained in strength it became noticeable that there was no school in which preparation for these branches of work could be found. The Gymnasium with its classical curriculum was a stranger to practical life; and its course of instruction, extending over 12 years, was too long and loaded with a freight which was bound to be considered useless ballast by the future merchant. In the course of the nineteenth century therefore a new kind of school (whose beginning dates back to the beginning of the eighteenth century) asserts itself side by side with the Gymnasium, that is the Realschule. It contains a modern course of instruction: English, French, the natural sciences, mathematics, geography, drawing, and emphasises especially the mother-tongue. Latin was added to it, so that the school might count as a preparatory school for the second class of the civil service. This was the origin of the Realschulen in 1859, which received the name Realgymnasium in 1882. They also received the right of preparing their students for the universities in modern languages, in mathematics, and in natural science. And so they became competitors of the Gymnasium, which hitherto had the sole right of preparing for the university. A third kind of secondary school arose in 1882, the Upper Realschule with a course of instruction extending over nine years; and this school also strove to obtain the right, not only of preparing its pupils for the technical colleges, but also for the universities. A long and fierce struggle ensued, lasting until the present time, the struggle between the Humanists and the Realists, the Gymnasium and the Realschule. A school conference which met in the Prussian "Ministerium" in December 1892 was to end this struggle. But no agreement could be arrived at, although the German Emperor took part in the discussion with

characteristic impetuosity. Last May a new conference was held in Berlin, and it is believed that the solution of the difficulty is imminent. The solution has become easier, because the technical colleges have obtained the right of conferring the doctor's degree and thus have become the equals of the universities.

Thus we find the lower, middle, and upper schools very active during the nineteenth century. New kinds of schools sprang up, partly owing to the influence of the middle classes, partly through the organising activity of the State which provided for the requirements of the military authorities as well as the wishes of the Church. This zeal to provide the children with all sorts of knowledge soon raised the question: Will the mental health of the children not be impaired? A German doctor raised this question as early as 1836, and even at the present time we are still troubled by it. It was right that such a question should have been raised in Germany; for the Germans have always paid too much attention to the development of the mental forces, and have paid too little consideration to the physical training. Games of various kinds have been known in Germany, but they had not entered the national spirit as much as in England, for example. The schools were satisfied with two hours' gymnastic exercise per week. This was thought sufficient to counterbalance the mental exertions; but as a matter of fact was not nearly enough. The Gymnasium especially earned the reproach of overtaxing the children mentally. The old Gymnasium was satisfied with Latin and Greek; the new tried to satisfy modern requirements by emphasising the teaching of the mother-tongue, and adding French, English, and natural science. That is to say, the child was expected to learn four foreign languages between its tenth and its eighteenth year, in addition to learning its own native tongue. Further, all the other branches of knowledge increased their demands, especially the natural sciences and mathematics, and the school inspectors took good care that

these claims were not neglected. It is therefore not astonishing that over and over again men, especially medical men, have called attention to the fact that it was useless to overstrain the mental forces at the expense of the bodily. Two kinds of efforts have been made to remedy this defect: (1) home-work has been cut down as much as possible; (2) more physical exercise has been introduced, such as games, rowing, excursions, &c.; without however engendering the danger of sport, which consists in withdrawing the mind from all higher aims and interests. The principle has not been lost sight of, that though the body must be made a capable instrument, ready for use at any time, nevertheless its training must never become the dominating point of view for education, lest the intellectual interests shall be sacrificed.

What has been said so far refers chiefly to boys' schools. The girls' schools show many differences. They followed their own course; they developed out of their own strength; they have been protected by the State, though not directly assisted by it. The State requires officials; therefore it concerns itself with the education of the boys and not with that of the girls. The world of woman seemed to lie quite beyond the sphere of its activity; it concerned itself with it only with regard to elementary education. Everything besides that was left to private enterprise. All girls come within the Act of compulsory education; that is, they must go to school for eight years; but nothing more. Since the elementary education did not appear sufficient for the educated families, private schools for girls had to be started. The necessity for this is shewn by the remark of a German educator, who wrote thus in 1786: "If an inhabitant of the moon should visit our planet, the result of his observations would be something like this: 'As to the feminine sex, especially that of the better classes, it seems as if the State cared little, whether they grew up into human beings or into monkeys.'"

The beginning of the nineteenth century, the period of deep

national decline, brought about a change in this respect also. The death of the noble Queen Louise in 1810 was felt as a deep national misfortune. The sorrow that was felt called forth the idea of providing for the better education of the girls of the upper classes, as a memorial to her. After the wars the towns began to found High Schools for girls, beginning in the east of North Germany, and gradually extending to the west and the south. Some private schools arose in addition to these and became the property of the towns in the course of time. In 1872 the first conference of men and women teachers at High Schools for Girls met at Weimar. The conclusions of this conference determined the future development of the Girls' High Schools, and Prussia regulated it in 1894 by an Act.

A further development of the system of girls' education came about in 1870, when a new kind of school was started, the middle school for girls, an intermediate school between the elementary and the High School. Up to that time the middle classes had no opportunity of giving their girls a suitable education, and this school therefore filled a vacant space.

Finally a fourth institution was added, the Girls' Gymnasium, an institution parallel to that of the boys. Its task is to prepare girls for the universities. The first Girls' Gymnasium was opened in 1893, and others soon followed. This kind of school owes its origin to the progressive woman's movement. In this respect also Germany has lagged behind; but much has been achieved in the last decades of the nineteenth century. All German universities, except one, admit women to their lectures; all confer the doctor's degree upon them, provided they fulfil the regular conditions. One of these conditions is the pursuance of a course of studies at a university lasting at least three years, and this involves the leaving certificate from a gymnasium. Since the regular Gymnasium did not admit girls, there was nothing left, except to found similar schools for girls, in order to open the university to them. This

was accomplished by adding to the Girls' High Schools a four years' course, which included Latin, Greek and mathematics.

Then also the idea of co-education took root, probably from the example of Sweden, Norway, Finland, Switzerland and the United States. Co-education had proved a success in the elementary schools and a few of the Realschulen in Oldenburg and in Baden. Why then should this system not be transferred to the higher schools and continued in the universities? We are now eagerly investigating the reasons for and against this, and are consulting the experience of other countries which have tried the experiment.

Thus we see there is great activity in all branches of education. The labour of the nineteenth century has produced much progress and has even set the milestones marking out the road of future development. In Germany we firmly believe that the whole educational system requires the systematising help of the State, in order that the *best* may be produced. If it is true that the work of civilisation is determined by the education and instruction given in a nation, then the nation must not leave the education of the forthcoming generation to accidents, nor to free competition, in which commercial considerations play only too frequently too large a part. No! the State must remove it from economic competition, and place it upon a higher level. The State, free from external cares and anxieties, alone can devote itself to the care of the intellectual interests of the rising generation. Our children have a right to demand nothing less than the best schools; and since the State exists to promote the intellectual welfare of the nation, it must see that the best schools possible shall be provided, no matter by whom; be it by the State itself or by the community or by private enterprise. Its institutions must be models in every respect, patterns for others. Otherwise there is no reason for their existence. It is on this account that the German State has made laws, which forbid anyone to teach, unless he has proved by an examination, held by the State, that he is

qualified to teach. On this account also, it has left exact instructions for the building, equipment, &c. of schools, without however restricting individual endeavours.

Thus our educational work presents a complete system in three sections, preceded by the Kindergarten: (1) for the lower, (2) for the middle, (3) for the upper classes.

The Kindergarten gives the first intellectual and physical instruction, especially the popular Kindergarten, which assists those parents whose work in the factories prevents them from educating their children. At the age of six the children enter school. Those of the lower classes remain eight years, those of the middle classes ten years, and those of the upper classes twelve years, before they proceed to a technical or a professional school.

1. The children of the working classes leave school at the age of 14, after they have been confirmed. After leaving the elementary school they receive instruction for at least four hours a week in an evening continuation school or a technical school; after that the army takes charge of them for two or three years and puts the finishing touch upon their mental and physical formation.

2. The children of the middle classes, especially those of the towns, go to the elementary schools for three or four years, then to a Realschule for six or seven years, and thence into the intermediate technical institutions, such as the polytechnics, the agricultural colleges, schools of mines and forestry, commercial schools, &c. After that they enter the army for one year.

3. The children of the upper classes also attend the elementary schools for three or four years, and after that one of the higher schools for nine years, that is, the Gymnasium, or the Real-Gymnasium, or the Ober-Realschule. At the completion of the instruction given in one of these they enter the army for one year, and at the same time one of the higher professional institutions, either the higher technical colleges or the university.

The German children receive a continuous education from their sixth year until they enter a trade or a profession. In a few States this course is not quite complete for the children of the lower classes; but the remedy for this is only a question of time. This course of continuous education has its origin in the idea that the work of civilisation must have workers well trained for whatever part of the work they take up: science, art, commerce, industry or agriculture. The training for these branches is obtained in the technical or professional institutions. But these latter presuppose a sound liberal education, an education which shows the interdependence of human work, teaches a clear understanding of the manifold branches of human activity, and explains the homogeneousness of the national work. This fundamental work is done in the educative schools which precede the technical schools. The former are the lower, the latter the upper floors of a building. The value of the German system lies in the fact that it insists that the foundation of the entire education shall not be too narrow, and that the specialisation for the practical studies shall not be begun too soon. This latter kind of education may at times produce a virtuoso, but it only too frequently produces dull, narrow-minded men, who are not able to see further than the limits of their own special work. There is a danger in technical education as such. This danger is met by a thorough liberal education, which points out connections, and emphasises the purely human elements, so that the individual does not become engrossed in the narrow sphere of his calling. And the more the commercial rivalry of the nations favours the technical schools, the greater is the necessity of seeing that the "educative" school maintains its position, especially for the sake of the technical schools. The "educative" schools give a general education; the technical schools prepare only for a profession, or perhaps only for one branch of one. The core of the curriculum of every "educative" school is: Religion, the Mother-Tongue and History. To these are added foreign

tongues, Geography, Natural Science, and Mathematics according to the necessity of each kind of school.

The question as to the value of Latin and Greek becomes more and more prominent as we approach the end of the nineteenth century. Earlier in the century people had no doubts about the value of the classical languages. But as the feeling of nationality becomes stronger and as the influence of the natural sciences increases, their superiority becomes more and more a question of dispute. Some say they are dead; others, that they have no place in the curriculum of the schools; others again, that they contain unperishable ideals of culture, which we cannot do without. Who is to decide? There is really no necessity of deciding peremptorily; we need merely recognise the fact that our modern world contains two ideals of culture. The one is based upon the modern conception of culture, the other has its roots in the ancient world. Both ideals still flourish, though the latter is a little faded as compared with former times. Each has its own school, the Gymnasium and the Upper Realschule, and between the two the Realgymnasium stands as a sort of compromise. The course of instruction in each extends exactly over the same number of years; all three have exactly the same privileges, and the three are therefore equal in value. The parents have the choice; they can send their children to whichever school they think best for the future career of the child. The Gymnasium will keep alive as long as the education it gives has sufficient power of attraction. It will die when it loses this power, and no one will be able to revive it. At the present time more than a thousand threads link us to the ancient world, and it would be presumptuous to cut these at once. One section of our people must carefully preserve the great historical continuity of our culture. But only one part of the strength of the nation is required for this task. Another section may be steeped in modern ideas, and gain strength and skill for the duties of modern life from them. In this way the old

quarrel between Humanism and Realism will become a friendly rivalry, since both enjoy the same freedom, the same light and the same air. Let the higher schools show what strength they can give to the leading section of the nation! That will finally decide where we shall find the greatest vitality, which of the three kinds of schools will triumph. Again and again we find investigations carried on, which are to prove how well Greek and Latin are suited for formal education and for the development of character. But the very fact that the greatest amount of scholarship and ingenuity is needed to show it, is a proof that the faith in classical antiquity as an educational instrument is not as strong as formerly, and that the authority of the German universities is the main support of these studies. This authority has not been shaken. The 21 universities of the German Empire with their 35,000 students form the summit of the national educational system. They are (to change the metaphor) the heart of scholarship, of intellectual life and of free progress.

They owe their origin to the Church, and yet they were the first of all educational institutions to free themselves from the tutelage of the Church, and to recognise as highest criterion, not an outside authority, but the striving after scientific truth. Neither the Church nor the State must interfere with this endeavour. It is this that makes them the bulwark of intellectual liberty, and the sanctuaries of freedom of speech. Even the State, to whom the universities belong, does not interfere with them. Though the State directs and regulates the administration and the finances of the universities, it yet leaves them a large measure of freedom in external matters, and takes good care not to interfere with the internal management of science, art and philosophy. With the solicitude of the State, which takes the greatest pride in its care of its universities, and its guarantee of freedom of teaching and of learning, the universities have steadily developed. Freedom of learning applies, of course, to the students and is as important

as freedom of teaching. The freedom of learning corresponds to that of teaching. The student chooses his subjects of study and his teachers, and he follows them just as much as he wishes and thinks good. The university is to train him in intellectual independence. He therefore selects his course of study, changes it perhaps with more experience and riper judgment; but it is always he who decides and who follows his studies as he feels inclined. Such a procedure does not exclude the possibility of making mistakes; but this is a lesser danger than the restriction of intellectual dependence. As a German professor says: "We cannot estimate highly enough the advantage accruing from the tendency of our universities, in their innermost nature, toward the complete emancipation of a man's spirit. In the preliminary school authority rules the entire man, as it must of necessity do; and later the practice of a profession and with it authority again, claims considerable portions of our life. But every cultured man on German soil must and shall have at least one period in his life when the organs of authority, when even nation, State and teacher demand of him as the highest of all commandments, that he shall be spiritually free." The German universities have thus obtained a firmer and securer position in the educational system in the course of the nineteenth century. They have also extended their work with the progress of knowledge, and have differentiated the separate branches of knowledge more and more.

Only one branch of knowledge has been neglected and is still waiting to receive attention, namely Education.

Though at most of the German universities either professors of Philosophy or professors of Theology give lectures on the subject of Education, and especially the historical part of it, it is done only irregularly and is without influence upon the practice in schools. Only a very few universities have a special chair for Education, and only one a "pedagogic seminary" together with a practising school for its students.

This is a remarkable fact. For there can be no doubt that a nation cannot afford to be indifferent as to the education of the rising generation. The nation's destiny depends upon it, its intelligence and its capacity. The future of the rising generation must therefore not be left to accident; a plan for their education must be drawn up. This plan must rest upon principles, that is, must have a scientific basis, if it is to be carried out uniformly and resolutely, and if it is to produce results. The thoughts about education and instruction must be worked out and elucidated, and their conclusions must be carefully considered.

Education, as much as anything else, must therefore receive careful and scientific attention, if it is to succeed. Where else are they to receive this attention except at the universities? There where Ethics, where Psychology, Sociology and Hygiene are studied in every detail, that is the place where the science of education must be elaborated.

This presupposes, of course, that the arrangements at the university for the study of education are not merely for theoretic work but also for practical work. For it is impossible to speak of a theory independent of its practice. That would be of little value for education. Only that theory is valuable to it, which has found its way into practice and still finds it every day. Only the science which can influence life possesses vitality. Only that education is valuable and important, which can penetrate into the practice of our schools. And in order to be able to do this it must not get too far away from the schools. It loses in strength and effectiveness just in the proportion in which it withdraws itself from practice. In this respect it is exactly in the position of Political Economy. The theories of this science will be useless if they do not embrace the present economic life of the nation and unless it has an exact knowledge of all its details. Even the educational theory that tries to get into touch with practice is insufficient. It must be in constant co-operation with it, if it is to effect

anything, and if it is to improve the practice. Therefore the university must not only provide for the theoretic study of education, but also for the practical, so that there may be a constant interchange between theory and practice, without which there can be no living science of education.

We therefore demand for the completion of our universities, chairs for education together with "pedagogic seminars" and practising schools.

That will be the one head of our educational institutions. It will take charge of the development of the science of education. It will be the driving power of mental progress, such as can only come from our universities.

The other head is the department for public instruction. It sums up all the organisations which look after the administration of educational matters. At the university we have the central place for scientific educational progress, in the "department" an epitome of all the educational institutions that convey educational progress into the life and work of our schools.

It is, of course, self-evident that the two heads do not oppose, but rather support one another. The department for public instruction, of which even the university is a part, takes the lead in external matters. But it takes its intellectual equipment from the educational works of the universities. And it is bound to take it from thence, because it concerns itself only with acts and minutes, and not with the science. The latter is the business of the university, since it concerns itself with research. The universities should also train the men whom the administrative department of education and our schools require. In this way the university undertakes great and important tasks; the organisation of them, however, is carried out by the department, since that is not a matter of research but one of performance.

Such co-operation between the educational section of the university and the department for public instruction would be

the best means of securing a sound foundation for the educational work of the nation. In Germany the development of things points to this solution. The universities have made a beginning in taking up educational tasks as part of their work, and the idea of separating the department of public instruction and of making the section for instruction independent is gaining more and more ground. Thus we have hopes of obtaining in this branch of knowledge also an organisation which shall be adequate to the essence of the matter and shall stand for progress.

Freedom is a great and a good thing; but it must not end in chaos. Where several forces are active in the same field, the interest of the work and progress as a whole requires that there should be some restrictions as to freedom of motion. This will in no wise damage the inner independence. The German workman, for example, is subjected to social legislation which he helps to construct. But this has in no wise restrained his political and religious thought. He is as free as any other inhabitant of the world. But in respect of old age, sickness and accident he possesses organisations which keep off misery, and in this he has the advantage over all those who have no such State organisations. The educational system of Germany is organised similarly without touching the inner freedom of the individual. He is only compelled to subject himself to definite forms with respect to external movement, which is required by the interest of all. The problem of inner freedom and external constraint is therefore solved by an organisation which is able to combine the necessary constraint of centralisation with the necessary freedom of decentralisation.

The department for public instruction sums up the best means of transmitting the intellectual goods to the rising generation without interruption, and of increasing the strength of a people. The highest endeavours for increasing and perfecting the intellectual treasures of a nation meet in the university.

These are the two great points on which the intellectual progress and mental culture in Germany hinge. Other countries try other ways of doing justice to their ideals of culture. But this is not a separating but a connecting element in the work of civilisation. The separating element lies in politics and in economics. That is where the interests of the nations collide, and whence conflicts threaten to arise. The connecting element is to be found in the intellectual interests, the purely human, which are common to all nations. Here also rivalry is to be found, but a friendly one. Each one tries to learn from the other; each tries to understand and to appreciate the work of the other. And this is the way in which I have endeavoured to interpret our aspirations and our attainments in education during the nineteenth century; that is to say, in order that I might challenge a comparison. Such a comparison will show considerable agreement, especially in the educational work. Naturally; because ethics, psychology and hygiene are not confined by political boundaries, but step beyond them. But we shall find profound differences in the organisation of the educational work, in the outer frame within which this work is contained. For these differences are closely connected with the historical development of a nation, the peculiarities of a country, and the financial means which are at its disposal.

Education has a cosmopolitan character in this way: Its roots go deep into the peculiar soil of its native land; but it tries to keep within its view the educational work of all the civilised countries, in order to preserve the width and height of its point of view, and so that it shall not sink into narrow-mindedness and into exaggeration.

That is where the best of all nations meet. This is a consolation in the midst of political discord and economic struggles, and a hopeful prospect for the future.

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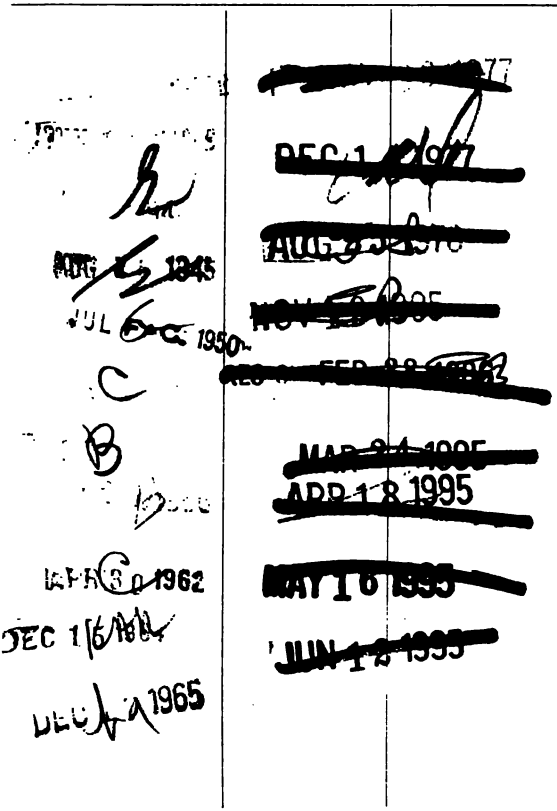

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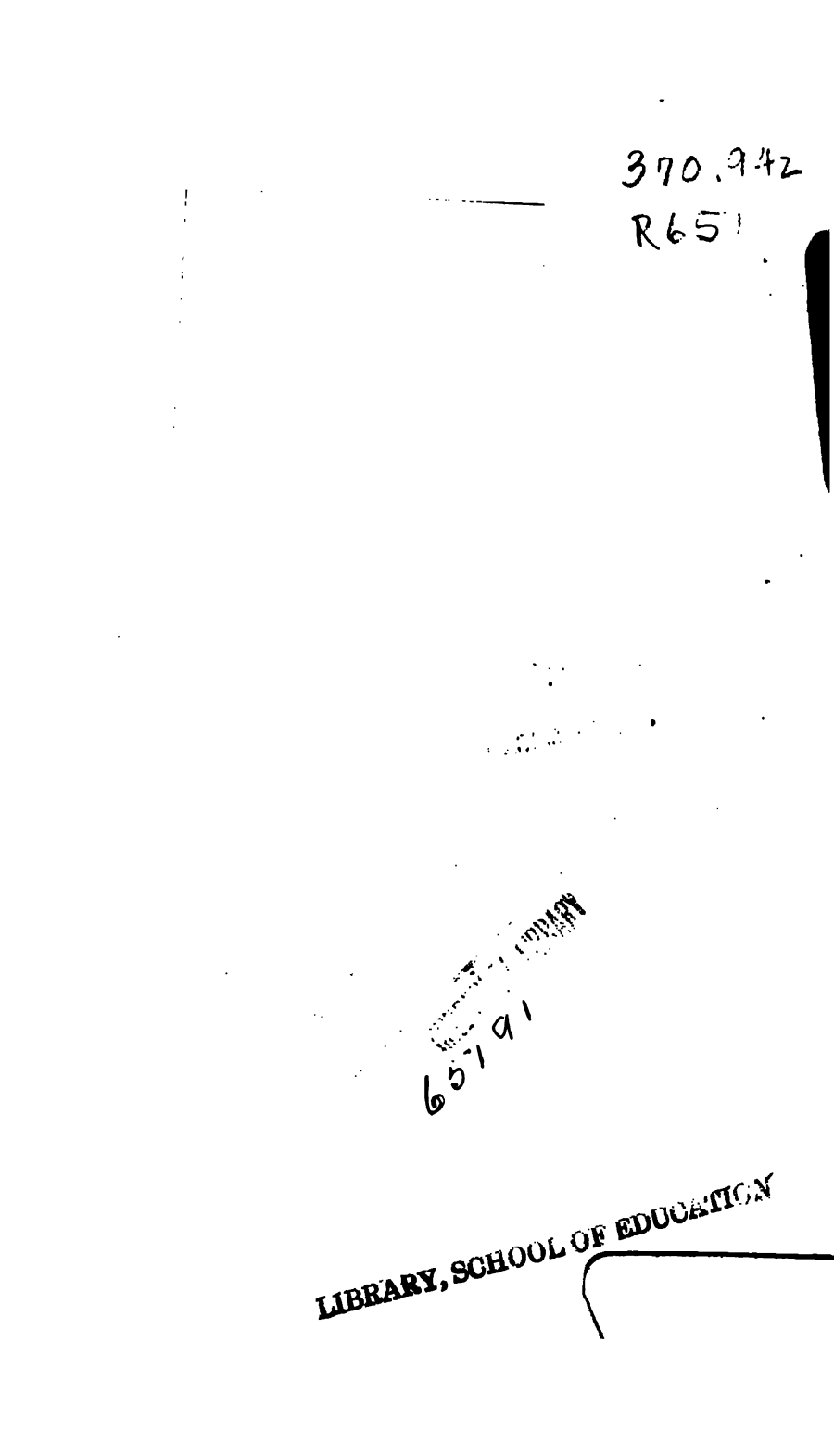

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